AWARD/CONTRACT

1. This Contract Is A Rated Order Under DPAS (15 CFR 700)	Rating	Page	Of	Pages
▶	DOA4	1		75

2. Contract (Proc. Inst. Ident.) No.	3. Effective Date	4. Requisition/Purchase Request/Project No.
W56HZV-12-C-0264	2012AUG22	SEE SCHEDULE

5. Issued By Code W56HZV

U.S. ARMY CONTRACTING COMMAND
CCTA-ATAF
STEVE HEPNER (586)282-3503
WARREN, MICHIGAN 48397-5000
HTTP://CONTRACTING.TACOM.ARMY.MIL

WS: No Identified Army Weapons Systems

e-mail address: STEVE.HEPNER@US.ARMY.MIL

6. Administered By (If Other Than Item 5) Code S1403A

DCMA CHICAGO
1523 WEST CENTRAL ROAD
BLDG 203
ARLINGTON HEIGHTS IL 60005-2451

SCD A **PAS** NONE **ADP PT** HQ0339

7. Name And Address Of Contractor (No., Street, City, County, State and Zip Code)

OSHKOSH CORPORATION
2307 OREGON ST
OSHKOSH, WI 54902-7062

TYPE BUSINESS: Large Business Performing in U.S.

Code 45152 **Facility Code**

8. Delivery

☐ **FOB Origin** ☒ **Other (See Below)**

9. Discount For Prompt Payment

10. Submit Invoices (4 Copies Unless Otherwise Specified) To The Address Shown In: ▶ **Item** 12

11. Ship To/Mark For Code

SEE SCHEDULE

12. Payment Will Be Made By Code HQ0339

DFAS-COLUMBUS CENTER
DFAS-CO WEST ENTITLEMENT OPERATIONS
P.O. BOX 182381
COLUMBUS, OH 43218-2381

13. Authority For Using Other Than Full And Open Competition:

☐ **10 U.S.C. 2304(c)( )** ☐ **41 U.S.C. 253(c)( )**

14. Accounting And Appropriation Data

SEE SECTION G

15A. Item No.	15B. Supplies/Services	15C. Quantity	15D. Unit	15E. Unit Price	15F. Amount
SEE SCHEDULE	CONTRACT TYPE: Firm-Fixed-Price	KIND OF CONTRACT: Research and Development Contracts			

15G. Total Amount Of Contract ▶ $34,820,922.49

16. Table Of Contents

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	B	Supplies or Services and Prices/Costs				**Part III - List Of Documents, Exhibits, And Other Attachments**	
X	C	Description/Specs./Work Statement	2	X	J	List of Attachments	75
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Contracting Officer Will Complete Item 17 (Sealed-Bid or Negotiated Procurement) Or 18 (Sealed-Bid Procurement) As Applicable

17. ☒ **Contractor's Negotiated Agreement (Contractor is required to sign this document and return** 2 signed **copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)**

18. ☐ **Sealed-Bid Award (Contractor is not required to sign this document.) Your bid on Solicitation Number _____, including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your bid, and (b) this award/contract. No further contractual document is necessary. (Block 18 should be checked only when awarding a sealed-bid contract.)**

19A. Name And Title Of Signer (Type Or Print)

20A. Name Of Contracting Officer

DOREEN J. COSTA
DOREEN.J.COSTA@US.ARMY.MIL (586)282-5632

19B. Name of Contractor **19c. Date Signed**

By _____
(Signature of person authorized to sign)

20B. United States Of America **20C. Date Signed**

2012AUG22

By SIGNED REPRINT
(Signature of Contracting Officer)

AUTHORIZED FOR LOCAL REPRODUCTION
Previous edition is NOT usable

Standard Form 26 (Rev. 5/2011)
Prescribed By GSA - FAR (48 CFR) 53.214(a)

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 GENERAL

C.1.1 Introduction

This Statement of Work (SOW) encompasses the Engineering, Manufacturing, and Development (EMD) phase of the Joint Light Tactical Vehicle (JLTV) acquisition program. All references to meetings, conferences, and reviews, as well as documentation, shall pertain only to the EMD phase unless specifically stated otherwise. In areas of the SOW where the contractor is required to use "latest version" or "latest edition" of released documents, models, or the alike; means the latest documents that were effective as of RFP release date.

C.1.2 Scope

The JLTV requirements are fully described in the JLTV Purchase Description (Attachment 1). In this SOW, the term "JLTV" will refer to the entire JLTV defined below, and the term "configurations" will be used to refer to the four Mission Package Configurations defined below.

The JLTV is comprised of two variants, a two-seat and a four-seat variant, and a companion trailer (JLTV-T). The two-seat variant has one base vehicle platform: The Utility (UTL). The four-seat variant has two Base Vehicle Platforms: The Close Combat Weapons Carrier (CCWC), and The General Purpose (GP). Each base vehicle platform will be configured as a Mission Package Configuration through the installation of Mission Packages, as defined in Annex K of the JLTV Purchase Description (Attachment 1).

JLTV Mission Package Configurations:

- Utility (JLTV-UTL)
- Close Combat Weapons Carrier (JLTV-CCWC)
- General Purpose (JLTV-GP)
- Heavy Guns Carrier (JLTV-HGC)

The JLTV shall be developed, designed, modeled, simulated, fabricated, tested, and delivered to maximize performance within the affordability described in C.1.3. All Contract Data Requirements List (CDRLs) shall cover each deliverable configuration by specifically addressing any unique differences in the configurations. One CDRL submission may address all configurations.

C.1.3 Affordability

The Contractor shall consider affordability within the JLTV and achieve a Production and Deployment phase Average Unit Manufacturing Cost (AUMC) no greater than $250K (FY11 dollars), while maximizing performance in the JLTV Purchase Description (Attachment 1). The complete definition of AUMC is provided below. The cost target for the B-kit Armor is $65k (FY11 dollars). The Contractor shall track and control costs and shall perform cost-performance analyses. The ground rules and assumptions for vehicle production, schedules, and quantities are provided in Attachment 6 (Manufacturing Cost Estimate Template). The Contractor shall not create or define any additional "kits" to meet requirements beyond those kits already defined in the JLTV Purchase Description (Attachment 1); any such "kits" will be considered as non-compliances by the Government.

C.1.3.1 Definition of AUMC :

AUMC is defined as average cost to the USG to buy JLTV base vehicles (averaged across all configurations). The unit manufacturing cost should reflect a projected vehicle contract price for each JLTV configuration to include all direct and indirect cost. The unit manufacturing costs should include all overheads applicable to vehicle contract prices including General and Administrative (G&A), Cost of Money, and Profit. Non-recurring costs must be accounted for and may be amortized over the vehicle quantity buy. The recurring costs include the costs of material, labor, and other expenses incurred in the fabrication, checkout, and processing of parts, subassemblies, and major assemblies/ subsystems needed for the final system. The manufacturing cost also includes recurring costs of subcontractors and purchased parts/equipment. The manufacturing cost further includes recurring costs of the efforts to integrate and assemble the various subassemblies into a working system, recurring costs to install special and general equipment, and recurring costs to paint and package the system for shipment to its acceptance destination. It also includes moves in order to assemble into a final system. This is the price of the vehicle rolling off the line in its basic configuration before B-Kit armor or kits (as defined in the JLTV Purchase Description (Attachment 1) are added.

C.1.4 Commonality

The Contractor shall consider commonality within the JLTV as well as interchangeability with other DOD tactical vehicles, commercial sector processes and hardware, and allied forces (NATO). Commonality shall include interchangeability of components, Line Replaceable Units (LRUs), Line Replaceable Modules (LRMs), and consumables. Commonality shall also consider the interrelationships between systems, major sub-systems, sub-systems, assemblies, and sub-assemblies as they relate to operator and maintenance tasks, training requirements, use of support equipment. Commonality is based on a comparison of interchangeable LRUs and components which are defined as having the same fit, form and function as another LRU or component. The methodology for assessing tool commonality should be the annotation of all tools required to maintain and repair each sub-configuration at field maintenance level. Training commonality assesses the impact on training by considering the differences in operation and maintenance tasks as it relates to the JLTV variants, base vehicle platforms and mission configuration packages. Maintenance commonality contributes to consistency with the two level maintenance concepts and the definition for a field replaceable component, comparing and contrasting of the different Maintenance Tasks being performed at a specific Level of Maintenance. The Contractor shall specifically identify commonality-driven design decisions at the Design Understanding Review (DUR).

C.2 PROGRAM STRUCTURE & MANAGEMENT
The Contractor shall define and ensure Key Roles (e.g. PM and IPT leads) are staffed with personnel of commensurate education, training, work experience, and technical training necessary to effectively and efficiently perform required tasks. The Contractor shall present their organizational Key Roles at the Start of Work Meeting (SOWM) and shall discuss the plan for communicating and transitioning personnel changes. When the Contractor intends to change the personnel working in Key Roles, the Contractor shall to the maximum extent possible, provide 14 days notice to the Contracting Officer Representative (COR) prior to the personnel transition. To the maximum extent possible and practical, the Contractor shall conduct a transition meeting with the Government within seven days of the anticipated transition date to discuss all key issues related to such a transition. The Contractor shall provide Minutes, reference CDRL Data Item A002, NLT two days after the transition meeting, reporting on any Government concerns or issues discussed in the transition meeting, and providing analysis of actions that the Contractor will take to ensure a seamless transition.

C.2.1 Integrated Product Teams (IPTs)
For purposes of this Contract, any joint deliberative or task-focused body, regardless of its formal or informal title, (e.g., "Working Group," "Integrated Design Team", etc.) shall be considered an Integrated Product (or Process) Team, or "IPT". IPTs shall be established to serve as the primary contract management tool and key method of communication for this contract.

The first IPT meetings shall be held concurrently with the Start of Work Meeting (SOWM). Subsequent IPT meetings shall be held monthly or as mutually agreed between the Government and Contractor.

The Contractor shall be responsible for developing all IPT agendas and meeting minutes. The IPT meeting minutes shall be made available to the Government and discussed at subsequent IPT meetings.

The Contractor shall allow physical and dial-in access to the Government for all Contractor IPT meetings and any Contractor design reviews following the SOWM event, in order to allow mutual understanding and maintain the program direction.

C.2.1.1 IPT Structure
The IPT structure may include the following teams: Program Management, Business Management, Acquisition, Systems Engineering, Supportability & Logistics, and Product Assurance Test & Evaluation.

Systems Engineering IPT should incorporate the following disciplines: Environmental, Safety, and Occupational Health (ESOH); Human Systems Integration (HSI)/Manpower and Personnel Integration (MANPRINT); Manufacturing & Quality; Reliability, Availability, Maintainability (RAM); Risk; Modeling & Simulation (M&S); Force Protection; Mobility; Weapons; Transportability; Trailer; Auxiliary Automotive; Vetronics (with Electronic Architecture); C4ISR Integration; Software; Power Management; and Information Assurance.

IPT Leaders shall be identified no later than the SOWM. The Contractor may propose changes to the number, composition, functionality, and responsibilities of IPTs at the SOWM. Proposed changes will be jointly determined thereafter. Throughout the life of this contract, both Contractor and Government IPT members have the responsibility to propose new or modified IPTs when needed to focus efforts or improve effectiveness.

C.2.2 Integrated Master Plan (IMP)
The Contractor shall manage the JLTV EMD program in accordance with the IMP (Attachment 2 IMP) and Integrated Master Schedule (IMS) (reference CDRL Data Item A012). The IMP outlines significant accomplishments and Exit Criteria for the program's major reviews that shall be satisfied to accomplish the work under this contract. The Contractor shall report on program progress at each Program Management Review, at selected meetings/audits/assessments/reviews in accordance with the IMP. The Contractor shall utilize the IMP and contract deliverable dates to develop their IMS baseline.

C.2.3 Internet-Based Collaboration
The JLTV Integrated Data Environment (IDE) consists of internet-based collaboration tools (defined below) that shall be used to facilitate information sharing and collaboration within a secure Government server environment that provides controlled, distributed access to JLTV program information, both released and in-work. Types of information that shall be processed and maintained within the IDE will include JLTV program documents, reports, program management data, meeting-related information, modeling and simulation/analysis data, pertinent manufacturing information, and test data, consistent with the JLTV Security Classification Guide (the Government will provide the JLTV Security Classification Guide at the Start of Work Meeting). Any posting to the IDE is considered a data deliverable in the context of DFARS Data Rights clauses including 252.227-7013 and 252.227-7014 . The IDE shall only be used for sharing unclassified/FOUO information. All classified information shall be sent via registered mail to the JLTV classified mailing address.

JLTV classified mailing address:
SFAE-CSS-TV-JL
6501 E. 11 Mile Rd, MS 640
Warren, MI 48397

The Contractor shall notify appropriate Government personnel via e-mail when new or updated documents are posted to a collaboration environment. The notification email shall include a hyperlink to the location of the posted content. Correspondence to the Contracting

Officer shall not be submitted via an internet-based collaboration tool without prior authorization.

IDE collaboration tools: The Contractor shall use the JLTV SharePoint server to facilitate unclassified, secure internet-based information sharing between JLTV program participants. SharePoint will also serve as the primary means of submitting unclassified/FOUO CDRL items, unless otherwise stated within a specific CDRL item. The Contractor shall conduct Contractor-Government internet conferencing (web meetings) using Government approved systems such as the Defense Connect Online (DCO) conferencing tool. The Contractor shall use VDLS [VISION (Versatile Information Systems Integrated On-Line Nationwide) Digital Library System] to access unclassified data from Government testing, and Secret VDLS for classified test data. Details on specific IDE tools, requirements for access, and approach for use will be discussed at the SOWM.

The Government will sponsor Army Knowledge Online (AKO), SharePoint, DCO, VDLS, SVDLS, and other required accounts. Details will be provided at the SOWM. The Government can only sponsor accounts for U.S. Citizens. The Contractor shall provide names, contact information, level of access (upload or download), and training required for personnel requiring access to these tools NLT SOWM meeting, for all systems except VDLS. The list of Contractor personnel requiring VDLS access shall be provided to the Government 60 days prior to the Test Readiness Review (TRR).

In order to access these systems, the Contractor shall have or obtain External Certification Authority (ECA) Certificates and/or DoD Common Access Cards (CAC) for appropriate personnel. The Contractor shall designate an Information Assurance (IA) Officer to work with PM JLTV and the Government IA Manager in order to obtain and implement usage of the ECA and/or CAC program in compliance with DoD Directive 8190.3 Smart Card Technology, and DoD Instruction 8520.2, Public Key Infrastructure (PKI) and Public Key (PK) Enabling.

C.3 MEETINGS/AUDITS/ASSESSMENTS/REVIEWS

C.3.1 Participation/Administration
The Contractor shall participate in the meetings, audits, assessments, and reviews required in this scope of work. Where possible, face to face meetings shall be scheduled in tandem, or groups, to minimize personnel resources and travel expenses. Unless otherwise specified in the paragraphs below, all meetings, audits, assessments, and reviews shall be hosted by the Contractor. The Contractor's hosting duties and responsibilities shall include all functions (e.g. providing facility, sending invitations, media resources, security, minutes, hard copy materials) related to the preparation and execution of the meetings, audits, assessments, and reviews. Major review content shall, at a minimum, address the items in the IMP.

C.3.1.1 Agenda and Read-Ahead Packages
The Contractor shall submit an agenda and read-ahead package in Contractor format for all meetings, audits, assessments, and reviews in this section. Each agenda shall include presentation of all items identified in the IMP for that specific event. The IMP will be used as Exit Criteria for each event. (CDRL Data Item A001)

Cost & IMS information may be included as an agenda item at meetings, conferences, and reviews to include discussion of contract progress and issues (performance goals, exit criteria, schedule progress, risks and mitigation, and cost impact).

C.3.1.2 Minutes
The Contractor shall record and provide minutes for all meetings, audits, assessments, and reviews in Section C.3 and otherwise called out in this contract. The Contractor's recorder shall be identified at the beginning of each event. (CDRL Data Item A002)

C.3.1.3 Invitations
Government participants will be identified by the Government Program Office. The Contractor shall send invitations for all meetings called out in Section C.3 not less than 14 days prior to the event.

C.3.2 Start of Work Meeting (SOWM)
The Contractor shall participate in a Start Of Work Meeting at or near the Government Product Manager site within 7 to 30 days after Contract Award, as scheduled by the Government. This meeting will introduce and align the Government and Contractor teams. The SOWM will consist of a Scope of Work review, a System Requirements Review (SRR), and an IMS Review. The agenda topics for the SOWM are identified in the SOWM Agenda (Attachment 4). The SRR will be a line by line review of the Purchase Description (Attachment 1). Refer to Section C.4.5.1 for IMS Review requirements. For planning purposes, this meeting is anticipated to be a six consecutive day event.

C.3.3 Design Understanding Review (DUR)
The Contractor shall host and conduct a Design Understanding Review at or near the Contractor site NLT 120 days after Contract Award as proposed by the Contractor at the SOWM. The Contractor shall present their detailed JLTV design. The Review shall be at a level of detail similar to a Critical Design Review (CDR), include M&S results, and describe compliance to the JLTV Purchase Description (Attachment 1). The Contractor shall display and manipulate 3D CAD models for meeting participants. For planning purposes, this meeting is anticipated to be a five day event.

C.3.4 Program Management Level IPT Meetings
The Contractor shall conduct at a minimum monthly Program Management (PM) Level IPT Meetings. The PM Level IPT Meetings shall commence

the month following the SOWM. The meetings shall include Contractor program management personnel and working level IPT personnel to address cost, schedule, performance, risk status, and the Contractor shall be prepared for detailed discussion with the Government. Technical issues shall be presented in terms of performance goals, exit criteria, schedule progress, risks and mitigation, and cost impact.

C.3.5 Program Management Reviews (PMR)
The Contractor shall conduct quarterly PMRs, beginning with the first quarter after contract award. The PMRs shall include Contractor senior-level program management personnel. The Contractor shall present cost, schedule, performance, and risk status at each PMR and be prepared for detailed discussion with the Government. Issues shall be presented in terms of performance goals, exit criteria, schedule progress, risks and mitigation, and cost impact. For planning purposes, these meetings are anticipated to be a one day event.

C.3.5.1 Final PMR
The final PMR shall be conducted no sooner than 26 months after contract award. In addition to the items in the IMP the following shall be Exit Criteria for the final PMR:

(a) All final CDRL submittals accepted
(b) A final physical inventory of Government Property shall be performed and the resulting report (which shall include the Facility Vehicle and GFE/GFI on Attachment 36) submitted to the COR.
(c) Condition of each test asset described and presented
(d) Contractor and contractor equipment vacated from test sites
(e) All major reviews closed out

C.3.6 Government Conducted Technology Readiness Assessment (TRA) Reviews
The Contractor shall participate in Government-led TRA Reviews as a portion of the TRR and PRR. The Contractor shall evaluate and present system technology maturity based on the Work Breakdown Structure (WBS) (Attachment 8), the score of the level of technological maturity, and demonstrate achievement of Technology Readiness Level (TRL) 7 as defined in the Defense Acquisition Guide (DAG) Section 10.5.2, Technology Maturity and Technology Readiness Assessments. If TRL 7 has not been achieved for any component at TRR, the Contractor shall present a technology maturation plan at the event, detailing how TRL 7 will be achieved by PRR.

C.3.7 Test Readiness Reviews (TRR)

C.3.7.1 Contractor Conducted Pre-Test Readiness Reviews (pre-TRRs)
The Contractor shall conduct a Pre-TRR to present to the Government the readiness of the vehicles to enter into Government system level testing. The Pre-TRR shall be held at or near the Contractor build site, at least seven days prior to the Government TRR. The Pre-TRR shall address the content detailed in the IMP (Attachment 2) and the Pre-TRR Checklist (Attachment 13). For planning purposes, this meeting is anticipated to be a two day event.

C.3.7.2 Government Conducted Test Readiness Reviews (TRR)
The Contractor shall support the Government TRR, conducted at or in the vicinity of Aberdeen Proving Ground (APG). The Government TRR is anticipated to be held no more than seven days prior to vehicle delivery and will assess both the Contractor's and the Government's test readiness. The Contractor shall be prepared to support the TRR with all of the information prepared for the Pre-TRR. For planning purposes, this meeting is anticipated to be a one day event.

C.3.8 Manufacturing Readiness Assessment (MRA)
The Contractor shall conduct an MRA at or near the Contractor site NLT 60 days after TRR. The purpose of this meeting will be to evaluate manufacturing readiness in preparation for Milestone C IAW the definitions, criteria, and processes defined in the DoD MRL Desk book (30 July 2010). For planning purposes, the MRA is anticipated to be a two day event. MRA content, at a minimum, shall address the items in the IMP.

C.3.9 Functional Configuration Audit (FCA)
The Contractor shall conduct a Functional Configuration Audit at or near the Contractor site. The FCA shall follow the guidance of DAG Section 4.3.3.4.6. This assessment shall be the formal examination of the "as-tested" characteristics of the JLTV and will verify that actual performance complies with the design and interface requirements in the functional baseline. The FCA shall validate that each subsystem performs the functions assigned to it in the Allocated Baseline. The FCA shall review the JLTV test and analysis data, including component, subsystem, and software unit test results, to validate that the intended function or performance stated in the JLTV Purchase Description (Attachment 1) and Contractor Allocated Baseline is met.

The FCA content, at a minimum, shall address the items in the IMP. The FCA shall be conducted after Correction Action Period (CAP) 2 as defined in Section C.17.3.3 and prior to the Production Readiness Review (PRR). For planning purposes, this meeting is anticipated to be a three day event.

C.3.10 System Verification Review (SVR) / Production Readiness Review (PRR)
The Contractor shall conduct a System Verification Review concurrently with a Production Readiness Review (PRR), at or near the Contractor site, NLT 120 days after Correction Action Period (CAP) two as defined in section 17.3.3. The SVR, a multi-disciplined product and process assessment, shall follow the guidance of DAG Section 4.3.3.4.5. The Contractor shall demonstrate, at SVR, that their

JLTV design is ready to proceed into Low-Rate Initial Production (LRIP) and Full-Rate Production (FRP) within AUMC target, schedule, risk, and other system constraints.

The Contractor shall demonstrate at the PRR how they (and their major Subcontractors) will accomplish adequate production planning to reduce and eliminate unacceptable risks that would breach thresholds of schedule, performance, or cost. The PRR shall examine the readiness of the manufacturing processes, the quality management system, and the production planning (e.g., facilities, tooling and test equipment capacity, personnel development and certification, process documentation, inventory management, supplier management). The SVR/PRR content, at a minimum, shall address the items in the IMP. For planning purposes, this meeting is anticipated to be a five day event.

C.3.11 Milestone C Preparation Meetings & Support
The Contractor shall support JLTV Milestone (MS) C documentation and preparation efforts. This support shall include reviewing and/or clarifying their methodologies utilized to produce technical and/or cost data (e.g., CDRLs). This support may require the attendance of Contractor subject matter experts (up to five SMEs) at meetings resultant of data calls or requests for information from various levels of echelon within the Office of the Secretary of Defense (OSD) or the Department of the Army (DA)/Department of the Navy (DoN). This support will be required three times during the contract Period of Performance. Support requests requiring Contractor attendance will likely occur at PM JLTV offices or in the Metropolitan District of Columbia (DC) area (to include the Quantico, VA area) and each meeting will be no longer than one business day in duration.

C.3.12 Business Management Reviews

C.3.12.1 Contractor Manufacturing Cost Estimate Reviews
The Contractor shall host manufacturing cost estimate meetings with Government Business Management and Cost Team representatives to review the Contractor's manufacturing cost estimates, methodologies and source data, two weeks prior to the Manufacturing Cost Estimate Report submittal (Reference CDRL Data Item A003). For planning purposes, this meeting is anticipated to be a one day event.

C.3.12.2 Cost and Software Data Reporting (CSDR) Readiness Review
Prior to the Office of Secretary of Defense (OSD)/Defense Cost and Resource Center (DCARC) Post Contract Award Meeting (Reference C.3.12.3) and NLT seven weeks after contract award, the Contractor shall conduct a CSDR Readiness Review. This meeting may be held concurrently with, or influenced by, the scheduling of the SOWM.

The Contractor shall present their plan for implementation of CSDR requirements. The plan shall demonstrate the intended rationale, methodology, & source data for the segregation of costs by WBS element per CSDR Contract Plan (Attachment 5, Approved Contract CSDR Plan A-11-B-C1and Attachment 51, CCDR Instructions), by functional category, and by recurring v. non-recurring. For planning purposes, this meeting is anticipated to be a one day event.

C.3.12.3 OSD/DCARC - Post Contract Award Meeting
The Contractor shall attend and brief at the OSD/DCARC Post Contract Award Meeting to be held in Metropolitan District of Columbia (DC) area. At this meeting the Contractor shall present the methodologies used for mapping internal cost accounts to the agreed upon WBS, specifically showing how individual WBS elements will be populated with both recurring and non-recurring information. For elements where a 1921-1 report is required, the Contractor shall present the methodologies used for mapping internal cost accounts to functional breakout areas. For planning purposes, this meeting is anticipated to be a one day event.

C.4 BUSINESS MANAGEMENT
At the SOWM, the Contractor shall present their accounting calendar encompassing the duration of the contract. In addition the Contractor shall present scheduled dates of all recurring Business Management CDRL submissions to SharePoint and the DCARC repository. The Contractor shall notify the Government when there are any changes to this accounting calendar.

C.4.1 Contractor Manufacturing Cost Estimates
The Contractor shall provide a Manufacturing Cost Estimate Report that demonstrates auditable estimates for expected Production & Deployment (P&D) phase contract prices based on the JLTV concept and the Contractor's delivered designs in accordance with the Contractor Manufacturing Cost Estimate (Attachment 6). Attachment 6 provides the formatted delivery template and ground rules and assumptions for vehicle, trailer, and kits production schedules and quantities. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A003).

C.4.2 Contractor Cost Data Reporting (CCDR)
The Contractor shall prepare and submit CCDR IAW the Approved Contract CSDR Contract Plan A-11-B-C1 (Attachment 5), CDRL Data Items A004 and A005, and CCDR Instructions (Attachment 51).

Prime Contractors are responsible for flowing down these CCDR requirements to all subcontractors meeting the reporting thresholds. This responsibility includes requiring subcontractors to electronically report directly to the DCARC. The Contractor is responsible for collecting subcontractor data (for subcontractors not meeting CCDR reporting thresholds) in adequate detail to comply with the resource

data table requirements of the CCDR DD Form 1921 and 1921-1.

C.4.3 Bill of Materials (BOM)
The Contractor shall deliver a Bill of Material (BOM) for each JLTV configuration, trailer, and kit. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A010)

C.4.4 Contract Work Breakdown Structure (CWBS) Dictionary
The CWBS dictionary index is defined by the Approved Contract CSDR Contract Plan A-11-B-C1 (Attachment 5). All CSDR CWBS oriented reporting will be, at a minimum, in compliance with MIL-HDBK-881 definitions and the lowest CWBS level(s) identified by the Approved Contract CSDR Contract Plan A-11-B-C1 (Attachment 5). At the discretion of the Government, specific CWBS elements may require lower levels of reporting. The Contractor shall maintain and update the Dictionary during contract execution. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A011)

C.4.5 Contractor Integrated Performance Management
The Contractor shall establish, maintain, and use an integrated performance management system in the performance of this contract. The integrated performance management system shall link the Contractor's management processes and systems to include the Integrated Master Schedule (IMS), WBS (Attachment 8), change management, material management, procurement, cost estimating, and accounting. The Contractor shall integrate these systems and processes to provide early indication of cost or schedule problems, and their relation to technical achievement. The Contractor shall maintain a schedule and analysis system that includes a critical path feature. Use of a Commercial off the Shelf (COTS) application is preferred.

C.4.5.1 Integrated Master Schedule (IMS) Reporting and Review Process
The Contractor shall use the Defense Contracting Management Agency's (DCMA) Fourteen Point Schedule Assessment as guidance to develop and maintain an Integrated Master Schedule (IMS). The IMS shall include all efforts performed by Major subcontractors (Major subcontractor is defined as a subcontractor that is awarded a subcontract(s) and the value of all work awarded equals or exceeds 10 percent of the value of this contract). The IMS shall contain logically networked, detailed program activities encompassing; the contract milestones, events, decision points, critical subcontract task/hand-offs, external dependencies, Government Furnished Equipment, Government Furnished Information, exit criteria, discrete tasks and activities (including planning packages where applicable) from contract award through delivery and acceptance of all test assets.

The IMS shall be vertically and horizontally traceable. The IMS shall include reference to the IMP (Attachment 2), WBS (Attachment 8), and IPTs. Additionally, it shall include fields and data that enable the Government to assess the information by product, process or organizational lines, or any combination.

The IMS shall be capable of displaying summary, intermediate, and detailed schedules. Additionally, it shall generate schedule analyses of progress to date. The Contractor shall provide an IMS capable of producing a critical path analysis to the IMP program events Pre-TRR and TRR, and the program milestones defined in Sections F.2.1, F.2.2, F.2.3, F.2.4.1-F.2.4.3.. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A012).

The Contractor shall engage jointly with the Government program office in Integrated Master Schedule Reviews to discuss the risks inherent in the contract performance.

The IMS review will verify the Contractor's use of a reliable performance baseline that includes the pertinent contract scope of work, consistent with contract schedule requirements. The IMS review will be conducted IAW Section C.3.2. The Contractor shall provide a read-ahead package NLT two business days prior to the review containing documents and data pertinent to the upcoming review. At a minimum, the read-ahead package shall include:

(a) A draft agenda (reference CDRL Data Item A001, Agendas and Read-Ahead Packages) including interview schedule, locations, and participants (w/title)
(b) Program and Functional organizations, including names and titles of responsible individuals
(c) Time phased staffing plan
(d) Critical Path Analysis
(e) Risk Register
(f) Additional read-ahead requirements may be requested prior to the start of the review

C.5 SYSTEMS ENGINEERING (SE)

C.5.1 System Level Design Document (SLDD)
The Contractor shall deliver a System Level Design Document (SLDD) that encompasses the JLTV top-level designs and subsystem designs. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A014)

C.5.2 Technology Readiness Level (TRL) Assessments
The Contractor shall track and assess the TRL of the technologies included in the delivered configurations per the WBS elements (reference Attachment 8 WBS). This assessment shall include at a minimum a description of the technology, the function it performs and how it relates to other parts of the system. This assessment shall also include a description of the environment in which the technology has been demonstrated and an analysis of the similarities between the demonstrated environment and the intended operational environment. This assessment shall include the TRL assigned to each technology. Reference DoD Deskbook 5000.2-R for Technology Readiness Level definitions. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.5.3 Key Subsystems and Design Margins
The Government has identified key subsystems based on the impact of a failure to the EMD program schedule, as identified in the Key Subsystems (Attachment 9). The Key Subsystems are broken into three categories; Level 1, Level 2, and Level 3 depending on impact on program schedule and timing. The Contractor shall review Key Subsystem Design Failure Mode Effects and Analysis (DFMEAs), Design Verification Plan & Report (DVP&Rs), and Process Failure Mode Effects and Analysis (PFMEAs) as a part of the Manufacturing & Quality IPT.

The Contractor shall define design margins for use in the design of Key Subsystems (per Attachment 9). This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.5.4 System Requirements

C.5.4.1 Requirements Review Sessions
The Contractor shall conduct specific line-by-line Requirements review sessions in conjunction with events indicated in the IMP. In these sessions, the Contractor shall be prepared to discuss and provide additional information explaining how the JLTV meets the requirement for each line of the JLTV Purchase Description (Attachment 1). The SRR shall set the baseline for these discussions, and subsequent meetings shall focus on changes and updates based on the Contractor's design.

C.5.4.2 Requirements Verification Matrix
The Contractor shall provide a Requirements Verification Matrix that tracks achievement of all JLTV Purchase Description (Attachment 1) requirements, including all Objectives. The Contractor shall detail their assessment methods and make evidence available to the Government when the matrix is updated to show verification of a requirement. The matrix shall be completed in accordance with the template provided as Attachment 10. This Contractor verification is informational only and does not in any way supersede the verification requirements detailed in the JLTV Purchase Description (Attachment 1). The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A015)

C.5.4.3 Requirements Non-Compliance Reports
The Contractor shall provide a Purchase Description Non-Compliance Report to the Government in the event of any requirements non-compliance. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A016)

C.5.5 Weight Control and Reporting
The Contractor shall develop and implement a weight control program for the design, development, and fabrication of the JLTV. The Contractor may develop their processes using the Society of Allied Weight Engineers, Inc.'s Recommended Practices 5- Mass Properties Control System for Wheeled and Tracked Vehicles (26 May 2007) as a guide (www.sawe.org/technical/rp/rp5). The Contractor shall use a margin policy that reflects the level of confidence in the weight estimates and is applied individually to each entry in the weight reports. The Contractor shall verify scale calibration prior to weighing any components. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.5.5.1 Weight Estimating and Reporting
The Contractor shall prepare and update weight estimates throughout design, fabrication, and test. The Contractor shall validate weight estimates by using tracking and monitoring activities during design and production of the first deliverable vehicle for each configuration. Weight estimates shall be under configuration control consistent with design configuration management requirements (ref Section 11). The Contractor shall update and maintain the weight estimates throughout the duration of this contract.

The Contractor shall organize and format weight estimates in accordance with the BOM and WBS. Weight estimates may include additional vehicle configurations or unique subsystem configurations as deemed necessary by the Contractor. Weight estimates shall provide the center of gravity location for all configurations as defined in the PD and compare it against the limits developed by the Contractor for compliance to performance requirements.

Weight estimates shall include the following: Curb Weight, Curb+B1-Kit, Curb+B2-Kit, Curb+B2+EFP Kit, Gross Vehicle Weight (GVW), and Gross Vehicle Weight Rating (GVWR). Estimates shall be consistent with the Load Plan (ref. CDRL Data Item A070) and ensure that weights are carried in the respective locations on and in the vehicles.

All vehicle weights shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.5.5.1.1 Baseline Weight Estimate (BWE)
The Contractor shall maintain a BWE detailing the weight of the vehicle during detail design. The Contractor shall add a new baseline estimate to the BWE at the conclusion of the SRR, DUR, and any major design changes after DUR. The BWE shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.5.5.1.2 Preliminary Product Weight Estimate (p-PWE)
The Contractor shall maintain a preliminary Product Weight Estimate (p-PWE), based on the BWE, to record and report differences or changes between the BWE and the actual weights, as materials are procured, weighed, and the first of each JLTV configuration is fabricated. A rationale shall be prepared in the event any component weight is more than +/- 2% from the estimate for the component. The p-PWE shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.5.5.1.3 Product Weight Estimate (PWE)
When all margins have been eliminated from the p-PWE for each base vehicle platform, it shall become the Product Weight Estimate (PWE), and correlate with the expected Curb Weight for that base vehicle platform. The PWE shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.5.5.2 Scale Weighing Completed Vehicles
The Contractor shall ensure scale(s) used for the following measurements have been certified within a year of use.

C.5.5.2.1 Product Weight Baseline (PWB)
After scale weighing the first vehicle fabricated for each JLTV base vehicle platform at Curb Weight, the Contractor shall provide a PWB that sets the baseline of each base vehicle platform weight and explains any discrepancies between the PWE and the actual scale weights. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A018)

C.5.5.2.2 Weighing of All Deliverable Vehicles
Prior to delivery, the Contractor shall weigh each complete deliverable JLTV in its defined Curb Weight. Each delivered JLTV vehicle is expected to meet the weight requirements in the JLTV Purchase Description (Attachment 1) and is expected to be no greater than +/- 2% from the Curb Weight defined in the PWB (ref. CDRL Data Item A018). Any corrective adjustments to the documented weights or vehicle operational limits shall be made in accordance with the Configuration Management procedures per Section C.11. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.5.6 Corrosion Prevention and Control

C.5.6.1 Corrosion Prevention and Control Plan (CPCP) and Finish Specification Report
The Contractor shall implement Corrosion Prevention and Control. The Contractor shall provide a CPCP with a Finish Specification Report. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A019)

C.5.6.2 Joint Interfaces, Materials, and Coatings
The Contractor shall provide developmental joint design drawings depicting part interfaces, materials of construction, fasteners, coatings, and torque values to support the JLTV corrosion plan. The Contractor shall include a list of wear items that are exempt from the vehicle corrosion service life. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A090)

C.5.6.3 Corrosion Prevention Working Group
The Contractor shall participate in the JLTV Corrosion Prevention Working Group which is comprised of subject matter experts from the Contractor and Government communities whose primary focus is to ensure all corrosion issues are identified and addressed. The Contractor shall participate in monthly telecom Working Group meetings. The Contractor shall host quarterly face to face Working Group meetings at the Contractor location prior to vehicle delivery and attend quarterly Working Group meetings at Aberdeen Proving Grounds (APG) after vehicle delivery. During Corrosion Prevention Working Group meetings the Contractor shall present the status of the CPCP (reference CDRL A019).

C.5.7 Systems Interoperability
The Contractor shall be responsible for systems interoperability. Systems interoperability shall, at a minimum, include interoperability of all hardware, software, and logistics systems included in the JLTV (e.g. CFE, GFE, and GFI). This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.5.8 User Review Event Requirements
The Contractor shall conduct a User Review Event within 180 days after Contract Award. The Contractor shall propose the schedule for the User Review Event at the SOWM. The User Review Event may be executed using a vehicle or using virtual design review tools (e.g. the TARDEC Cave Automatic Virtual Environment (CAVE)) and the Contractor SIL(s), and shall be supplemented by the use of pictures,

presentations, animations, interactive demonstrations, vehicle mockups, and/or vehicles, as appropriate. All representations shall accurately depict the current design and GFE shall be used whenever possible. Soldiers and Marines will be made available to the Contractor for up to two weeks total for the User Review Event. The Contractor shall provide at least 45 days notification prior to the proposed User Review Event, and final timing of the Event shall be subject to Government Approval. The Contractor shall allow the Government access to the Contractor data collection and provide the ability for the Government to collect its own data at these events.

C.5.8.1 User Review Plan
The Contractor shall create a detailed User Review Plan including dates of the evaluations and a detailed plan for executing the User Review Event. The Plan shall detail if or how each Review will include the evaluations in the Recommended User Review Evaluations (Attachment 11). This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.5.8.2 User Review Reports
The Contractor shall provide User Review Reports documenting the Event. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A022)

C.5.9 Signature Management Goals
The Contractor shall use the guidelines in the following paragraphs along with engineering judgment and best practices to establish vehicle level Signature Management Goals for visual, acoustic, and thermal detect ability (other than those specifically required in the PD), and then incorporate these goals during Contractor design. The Contractor shall present their Signature Management Goals at the DUR. All developed assumptions, conducted analysis, and test data shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.5.9.1 Visual Signature Goal Development
Each established visual signature goal should be met under all assumed vehicle operating and environmental conditions. Vehicle profiles, caused by the addition of mounted crew weapon systems, antennas and other equipment, should be minimized and/or treated by shaping, size variation or other engineering methods to limit the creation of unnecessary signature cues. Vehicle surfaces that are likely to produce solar glints should be treated, tilted towards the ground or minimized.

C.5.9.2 Acoustic Signature Goal Development
Each established acoustic signature goal should be met under all assumed vehicle operating and environmental conditions, including stationary at idle and operating transversely at low speeds. Major noise sources should be addressed in order to meet any useful acoustic signature metric (See MIL-STD 1474, Level 1). Examples of major noise sources include engine exhaust, vehicle cooling, engine intake, and other mechanical noise. The Contractor shall also consider cost, weight, and efficiency impacts of any developing Noise, Vibration, and Harshness (NVH) methods.

C.5.9.3 Thermal Signature Goal Development
Each established thermal signature goal should be met under all assumed vehicle operating and environmental conditions, including idle, tactical idle and fully exercised vehicle running at full load. Best engineering practices include obstructing the view of hot components in the vehicle, use of insulation and radiation barriers, and consideration of heat rejection as part of the component selection process.

C.5.10 Engine Emissions Analysis Report

C.5.10.1 EPA Emissions Requirements
The Contractor JLTV design is not subject to EPA Motor Vehicle Heavy Duty Diesel Exhaust emission standards or the EPA Non-road exhaust emission standards since the vehicle will contain permanent armor protection. This determination is IAW 40 CFR, Sections 85.1703, 89.908 and 1068.225.

C.5.10.2 Engine Emissions Analysis Report
The Contractor shall provide a diesel engine emissions analysis report under transient and steady state test cycles using DF2 diesel fuel. This analysis and report shall be done using the engine(s) selected by the Contractor. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A023)

C.5.11 Growth Margin Analysis
Throughout the period of performance of this contract, the Contractor shall track the amount of growth margin in each of the following categories as a percentage of the total design: payload, armor, weight, computing, networks, data buses, electrical power, memory and towing capacity. As applicable, these growth margins shall be within the constraints of the transportability requirements as defined in the JLTV Purchase Description (Attachment 1). The Contractor shall provide a report documenting these available growth margins and the specific growth analyses in the following paragraphs. The growth margin tracked above, as well as the information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A103).

C.5.11.1 Power Generation Growth Analysis

As part of the Growth Margin Analysis, the Contractor shall conduct an analysis to determine how each configuration could be upgraded to supply power to future on-board systems including how additional power distribution would be connected to the existing architecture. The analysis shall include planning for future increased electrical power generation. The Contractor shall identify technology candidates, design modifications, retrofit compatibility, and supporting theoretical calculations.

C.5.11.2 Future C4I Systems Growth Analysis
As part of the Growth Margin Analysis, the Contractor shall conduct an analysis to determine how future C4I systems are to be integrated into the JLTV 4-seat variant, using the potential future requirements in Future C4I Systems Growth (Attachment 52). The analysis shall include plans for space, weight, power, system and network interconnects, mounting provisions, computing resources (e.g. applications, bandwidth, memory, processing), and thermal loads for all of the systems listed in "Table 5 - Future C4I Systems Growth" of Annex K of the JLTV Purchase Description (Attachment 1).

C.5.12 Vehicle Specification Sheet
The Contractor shall deliver two vehicle specification sheets for each JLTV configuration, IAW Vehicle Specification Sheet (Attachment 12). One sheet shall be in metric units and one sheet shall be in U.S English units. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A024)

C.5.13 Design for Maintainability Assessment
The Contractor shall demonstrate how the JLTV is designed for ease of maintenance and repair. At a minimum this activity shall address the Key Subsystems (per Attachment 9). The demonstration of the design process shall incorporate the use of CAD to simulate repair and maintenance processes using digital mockup assembly (DMA) methods (including clearances for tooling, personnel, and part removal) to determine the design has ample maintenance clearances, tolerances, and spatial constraints based on Developmental Design Models Technical Data (CAD Models) (Attachment 29). The Contractor shall perform an assessment of Design for Maintainability that includes results of these DMA reviews. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.5.14 Transportability Report
The Contractor shall complete and submit a Transportability Report. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A025)

C.5.15 Routing Diagrams - Cabling, Wiring Harnesses, and Plumbing
The Contractor shall provide detailed logical wiring diagrams, schematics, and physical routing diagrams (harnesses, cables, and plumbing) of all electrical, fluid, and air lines in the JLTV. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A027)

C.5.16 Special Characteristics
Special Characteristics (SC) are defined as product or process properties (e.g. dimensions, performance tests, part characteristics, or process parameters) that can impact safe product function (as defined by the ESOH Program, Section C.13.1) or induce non-conformance with Government regulations.

The Contractor shall identify all Special Characteristics (SC) in the JLTV design. The Contractor shall select their own marking schema for Special Characteristics as described in ISO/TS 16949:2009: Section 7.3.2.3 (e.g. the inverted delta symbol). The Contractor shall use this schema to identify and mark any characteristic or parameter that, when not executed according to the appropriate tolerances or specifications, can impact safe product function or induce non-conformance with Government regulations. The Contractor shall use best practices in order to include Special Characteristics in their Developmental Design Models Technical Data (CAD Models) (e.g. use of layers to manage components, fasteners, and other classes of material). Refer to section C.12.3.2 for Developmental Design Technical CAD Data Requirements.

This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.6 MODELING AND SIMULATION (M&S)

C.6.1 Contractor M&S
At the DUR, the Contractor shall provide an in-depth presentation of the Modeling and Simulation (M&S) that was used to optimize the JLTV design. The M&S presentation shall include key performance characteristics for Mobility (NRMM, Propulsion, Suspension, and Ride Dynamics), Thermal (Engine, HVAC, Electronics), Structure, Signature Management, Survivability (Vulnerability and Criticality), Transportability, Crash Worthiness, Fire Extinguishing, Reliability, Availability and Maintainability (RAM). Additional topics may be added by the Contractor.

The Contractor shall allow Government SME(s) access to observe and discuss the M&S process for the duration of the contract, in order to ensure an understanding of the tools, processes, constraints, and assumptions used during Contractor and any subcontracted M&S to

include: specific details such as Finite Element Analysis (FEA) and Computer Aided Design (CAD) modeling processes, default tolerance settings, Finite Element (FE) Model quality, material and structural properties, loading conditions, and nodes density assignment throughout the material depending on the anticipated stress level of a particular area. Expected cadence of these discussions shall be mutually determined at the SOWM. This requirement also applies to the creation and submission of the CAD & CAE models in Section C.12.3.

All M&S outputs, interim results, and data used to create the models shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.6.2 M&S Data Sheets Package
The Contractor shall submit a M&S Data Sheets Package containing the information and data sheets required in C.6.2.1-C.6.2.4. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A028)

C.6.2.1 Vehicle Propulsion Data Sheets
The Contractor shall submit fully completed Vehicle Propulsion Data Sheets (Attachment 14) for each JLTV configuration.

C.6.2.2 Vehicle Mobility and Dynamics Data Sheets
The Contractor shall submit fully completed Vehicle Mobility Data Sheets (Attachment 15) and Vehicle Dynamics Data Sheets (Attachment 16) for each JLTV configuration. When completing these Data Sheets, the Contractor shall assume the Run Flat Kit (if kitted) is not installed.

C.6.2.3 Thermal Management Data Sheets
The Contractor shall provide the data required in the Thermal Management Data Sheets (Attachment 17) for each JLTV configuration.

C.6.2.4 Safety & Crashworthiness Data Sheets
The Contractor shall provide the data required in the Safety & Crashworthiness Data Sheets (Attachment 50) for each JLTV configuration.

C.6.3 Vulnerability Analysis Data Package
The Contractor shall provide a Vulnerability Analysis Data Package that includes: the data described in Vulnerability Data Sheet (Attachment 20), a completed Cab Design Data Sheet, (Attachment 21), and detailed performance descriptions of the JLTV structure and the unique armor recipes for each vehicle surface (e.g. sides, top, front, rear, underbody, EFP). For each armor recipe, the Contractor shall specify the material and thickness of each armor layer (including air spaces), from outside to inside, plus the areal density of the overall recipe.

The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A032)

C.6.4 Underbody Blast Analysis
The Contractor shall perform underbody blast analyses against all threshold and objective underbody threats defined in Annex E of the JLTV Purchase Description (Attachment 1), for each JLTV configuration at all armor protection levels. All vehicle simulations shall include the finalized vehicle designs, including all subsystems, payloads, components (including GFE), and occupants.

C.6.4.1 Underbody Blast Analysis Package
The Contractor shall provide an Underbody Blast Analysis Package which includes the results of the above analysis and fully completed Blast Protection Data Sheets (Attachment 22). The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A033)

C.7 VEHICLE ELECTRONICS (VETRONICS) AND COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS, INTELLIGENCE, SURVEILLANCE, RECONNAISSANCE, AND ELECTRONIC WARFARE(C4ISR/EW) SUBSYSTEMS

C.7.1 Environmental Survivability and Reliability

C.7.1.1 Electromagnetic Environmental Effects (E3)
The Contractor shall perform analyses, studies, inspections, and tests to verify that the JLTV is designed to comply with the applicable E3 standards identified in the JLTV Purchase Description (Attachment 1). The analyses, studies, inspections, and tests shall also be sufficient to characterize the E3 performance of the integrated system including spectrum-dependent subsystems.

C.7.1.1.1 Electromagnetic Environmental Effects (E3) Performance Report
The Contractor shall provide an E3 Performance Report that details the E3 performance described above. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A036)

C.7.1.2 Co-site Interference and Antenna Optimization Report

The Contractor shall analyze potential interference patterns (co-site interferences) and optimize placement of all vehicle antennas (including Electronic Warfare) for each vehicle configuration. The Contractor shall work directly with the Government for final placement of all antennas. Specifically for the JLTV-CCWC configuration, the analysis shall include how each antenna is protected from the effects of missile exhaust. The Contractor shall provide the results of this analysis, including expected performance, antenna placement diagrams, Radio Frequency (RF) characteristics. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A035)

C.7.1.3 MIL Grade Connector Waivers
The Contractor shall submit waiver requests for non-MIL grade connectors (reference PDFOV-7660) using the format defined in MIL Grade Connector Waiver Form (Attachment 23), and shall include technical justification and qualification standards for the use of the alternate connector. All non-MIL grade connector waivers shall be submitted to the COR by SOWM. Waivers are intended to be dispositioned (approved/rejected) by the Government by DUR. If necessary, additional waivers will be considered up to nine months after Contract Award. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.7.2 Vehicle Network Configuration Package
The Contractor shall provide a Vehicle Network Configuration package including the Internet Protocol (IP) Addressing schema, IPv6 report, Controller Area Network (CAN) database, and configuration files of the vehicle networks. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW with the Government provided IMP. (CDRL Data Item A037)

C.7.3 Security and Information Assurance (IA)

C.7.3.1 IA Strategy
The Contractor shall execute an IA Strategy which includes tracking the status of IA Product certifications, system security requirements derived from the JLTV Purchase Description (Attachment 1), design system security architecture, detailed system security design; security test strategy, and risks based on the proposed architecture. The Contractor shall track if the IA or IA enabled products used within the architecture are on the DoD Unified Capabilities (UC) Approved Products List. For any products not on the List, the Contractor shall describe the path to obtain certification. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW with the Government provided IMP.

C.7.3.2 IA Accreditation Artifact Package
The Contractor shall provide an IA Accreditation Artifact Package. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A038)

C.7.3.3 IA and Software Scans
The Contractor shall provide the Government access to the software source code repositories for all JLTV software (excluding Commercial Off The Shelf (COTS)), the Systems Integration Laboratory (SIL) (Reference C.7.5), and integrated vehicle platforms for Information Assurance and Software Scans described in this section. Access shall be provided for a period of up to five days for each scan event. The IA Scans will allow the Government to conduct scans on the Contractor C4ISR/EW and Vetronics architectures and determine if there are any vulnerabilities or nonconformance in the system. The Software Assurance scans will allow the Government to conduct Software Assurance scans on the Contractor's C4ISR/EW and Vetronics software to determine if there are any vulnerabilities in the system. The Contractor shall ensure each source code repository can accept the Government's Hewlett Packard (HP) Fortify 360 Suite Static Code Analyzer scanning software tool.

C.7.3.3.1 Baseline IA and Software Scan
The Contractor shall provide the Government access to the SIL for the Baseline IA and Software Scan. The Baseline Scan shall be held NLT 180 days after Contract Award.

C.7.3.3.2 Intermediate IA and Software Scan
The Contractor shall provide the Government access to the SIL for the Intermediate IA and Software Scan. The Contractor shall jointly determine with the Government on what platform the test is to be conducted. The Intermediate Scan shall be held NLT 30 days prior to delivery.

C.7.4 Electrical Architecture Metrics
The Contractor shall track a set of metrics for the JLTV electrical architecture for the following aspects of the vehicle command and control systems (not including GFE hardware):

(a) Computing resources. These metrics shall include peak processor throughput & utilization (per processor) and volatile & nonvolatile memory usage (per board level or processor application) for the Driver's Smart Display Unit (DSDU), Commander's Smart Display Unit (CSDU) and Auxiliary Smart Display Unit (ASDU).

(b) Functionality operation. This metric shall include start-up time for DSDU; time shall commence from vehicle ignition-on to when full functionality of the display is available. This metric shall also apply to the CSDU, and ASDU; time shall commence from power on to when full functionality of the CSDU, and ASDU is available through the display. This metric shall be tracked at temperature extremes

specified in the Purchase Description (Attachment 1) hot, cold, and room temperature (68F).

These metrics shall initially be tracked as estimates and shall be updated with actual values as the development progresses. These metrics will be reviewed by the Government initially at DUR and monthly through the end of contract. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.7.4.1 Data Bus Metrics
The Contractor shall track data bus resource metrics for the entire JTLV electrical architecture. These metrics shall measure throughput & utilization for all Vehicle Sensor Data Buses and the C4ISR/EW Data Bus. The metrics shall initially be tracked as estimates and updated with actual values as the development progresses. These metrics shall be reviewed initially at DUR and monthly through the end of contract. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.7.4.2 Power Budget Accounting
The Contractor shall track hotel, on-board, and export power loads (nominal and peak) for each JLTV configuration using a power budget breakdown. The loads shall initially be tracked as estimates and updated with actual values as vehicles are built and tested by measuring actual currents and voltages. Included in the breakdown, the Contractor shall list the total load draw of each configuration when integrated per Annex K of the JLTV Purchase Description (Attachment 1). This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.7.5 Systems Integration Lab (SIL)
The Contractor shall develop and use a SIL or SILs to integrate and test the JLTV system electronics, Line Replaceable Units (LRUs), and Configuration Items (CIs) prior to full vehicle integration. The SIL(s) shall contain all JLTV production-intent electrical and electronic components (modules, displays, controls, clusters, cabling and harnesses) and GFE electronic hardware and software to enable the replication of fully integrated vehicles. The SIL(s) shall be able to demonstrate actual hardware for both four-seat and two-seat variants.

The SIL(s) shall be functional and the Contractor shall provide a SIL demonstration prior to the Baseline IA and Software Scan. The Contractor shall also provide demonstrations prior to the Intermediate IA and Software Scan. After delivery of the vehicles, the SIL(s) shall remain fully functional. Proposed corrective actions shall be validated in the SIL(s) prior to implementation on the vehicles. The SIL(s) shall be kept current using the Change Management process defined in section C.11 for configuration changes developed by the Contractor in order to reflect the current state of the vehicles until the end of the contract.

C.7.5.1 SIL Demonstration Procedures
The Contractor shall develop and discuss recommended operating procedures for the execution of the events identified in SIL Demonstration Operating Scenarios (Attachment 24). This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.7.6 Health Management System (HMS)

C.7.6.1 HMS Report
The Contractor shall provide a HMS Report to include their Diagnostic Fault Data Table, Sensor Strategy, the Fault Notification Strategy, and the Data Strategy. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A040)

C.7.7 Other Analyses
The Contractor shall perform the analyses below (Section C.7.7.1-C.7.7.5), unless an analysis is not applicable to the Contractors JLTV design. The information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.7.7.1 Electrical Bus Fault Handling Analysis
The Contractor shall conduct analysis to demonstrate the following:

(a) How the electrical distribution system prevents or protects against voltage reversals (including the limits of the reverse voltage tested or verified).
(b) How the electrical distribution system is protected when short circuits occur.
(c) How the system reacts and is protected against arcing. If any arc detection techniques are used, the analysis shall discuss these techniques.
(d) Electrical items which should be checked for proper operation prior to initial Fording Tests.

C.7.7.2 Cascading Electrical Failure Analysis
The Contractor shall demonstrate through analysis the fault detection strategies employed on the vehicle that relate to the power management, generation, and distribution system will not cause a cascade of failures or have any adverse affects on other equipment on the bus. If a fault is severe enough to cause other effects, the Contractor shall identify and discuss these effects.

C.7.7.3 Battery Charging Strategy Analysis
The Contractor shall perform analysis and create curves or charts that demonstrate the correct charging rate for the battery at any State of Charge (SOC) and bus voltage level.

C.7.7.4 Energy Storage Device Degradation Analysis
The Contractor shall perform analysis that demonstrates that the energy storage device does not degrade below the level to perform its stated vehicular functions in the JLTV Purchase Description (Attachment 1) in less than three years.

C.7.7.5 Data Bus Communication Failure Default Mode Analysis
The Contractor shall perform analysis that demonstrates that when data bus communication required to control or configure components fails, the controlled or configured component will operate in a default state that provides for failsafe operation (reference PDFOV-1883 in JLTV Purchase Description Attachment 1).

C.7.8 VICTORY Participation
The Contractor shall evaluate design compliance to the VICTORY Standards Specification 1.0 (29 July 2011, https://sp.kc.us.army.mil/sites/VICTORY/default.aspx) and present a comparison of fully including VICTORY as a part of their design versus not including VICTORY, including expected cost differences, expected design advantages or burdens, compliance to the VICTORY Standards, and rationale for areas that are not compliant to the VICTORY standard. This presentation shall be given to the Government in San Antonio TX, including VICTORY personnel, NLT 180 days after Contract Award.

C.8 SOFTWARE
The Contractor shall have and maintain at least a Capability Maturity Model Integration (CMMI) Level III Software Engineering Institute (SEI) certification for all business units and subcontractors performing software development work. The Contractor shall deliver all software, including Non-Developmental Item (NDI), and Commercial Off The Shelf (COTS), software in each delivered vehicle with appropriate licenses and without restrictions for usage in its intended vehicle application.

C.8.1 Software Architecture Design Description (SADD)
The Contractor shall present a SADD at the DUR, describing the collection of software components utilized to meet JLTV requirements. The SADD shall describe the collection of software components utilized to meet JLTV requirements including descriptions of the interfaces and dependencies between components in the architecture. The SADD shall also include an explanation of each software component with its function, origin (e.g. COTS, CFE development item, GFE), size & computer resource constraints, interfaces, contract/derived requirement(s) satisfied by the component and indication of government rights in each software component. The Contractors response to this requirement shall include, but is not limited to, the following functional areas shall be examined: On-board C4ISR computing systems (including controls & displays), vehicle electronics (including embedded software), and power management. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.8.2 Source Code and Executables
The Contractor shall deliver a copy of all software images, executables, parameter files, configuration files, and source code utilized on the JLTV and developed by the Contractor or any subcontractors, including C4ISR and Vetronics software and firmware. The software images, executables, parameter files, configuration files, and source code shall be delivered separately from the vehicles. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A042)

C.8.3 Software License Package
The Contractor shall develop a Software License Package to identify and deliver all commercial software licenses for all software utilized on the delivered vehicles. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A043)

C.8.4 Software Version Description (SVD)
The Contractor shall develop a SVD document to describe each software version release. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A044)

C.8.5 Software Metrics
The Contractor shall track progress against the following software metrics. Tracking shall begin with estimates at SOWM and shall be updated monthly with actual values as available through the end of contract. The software metric information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. The software metrics shall address the following areas for the complete JLTV:

C.8.5.1 Source Lines of Code Metric
This metric shall track the number of Source Lines of Code (SLOC) by Software Configuration Item. Actual SLOC shall be tracked against the initial estimates, to provide indicator of progress versus plan.

C.8.5.1 Software Integration and Test Metric
This metric shall track the number of successfully completed integration and test procedures for each Software Configuration Item. Actual procedures shall be tracked against the initial estimates, to provide indicator of progress versus plan.

C.8.5.2 Problem Reporting Metric
The Contractor shall use a closed loop problem tracking system to capture, track, and correct software problems. The Contractor shall keep a set of metrics to track the number, type, and severity of open software problem reports against the total number of closed reports. The metrics shall be cumulative to show trends of problem report openings and closures over time.

C.8.6 Vehicle Software Updates
Upon the start of the Government testing phase, the Contractor shall conduct regression testing following any software modifications to ensure that no inadvertent functional degradation has occurred anywhere in the vehicle as a result of the software modification.

C.8.6.1 Vehicle Calibration Updates
The Contractor shall notify the Government of any planned calibration updates. Software acceptable for these updates are those systems which require extensive calibration testing on fully functioning, complete vehicles that cannot be accurately modeled, simulated, or developed using an alternative method, including:

(a) Electronic Stability Control (Including Traction Control and Anti-Lock Brakes)
(b) Active Suspension Systems (Active Damping, Height Adjustment, and Leveling)
(c) Active Drive train Systems (Active Transfer Case and/or Differentials)
(d) Active Safety Systems (Crash Avoidance, and Crash Preparation)

Vehicle calibration updates shall be presented to the Corrective Action Review Team (CART) and shall be performed at Corrective Action Period (CAP) 1, unless otherwise authorized by the CART (reference C.19.6.3). The Contractor shall schedule these updates with the Government, install any software updates in all test assets at all test sites, and maintain configuration management.

C.9 RELIABILITY, AVAILABILITY, AND MAINTAINABILITY (RAM) PROGRAM

C.9.1 RAM Program
The Contractor shall develop, implement, and maintain a comprehensive RAM Management Program. The management program shall establish a process to achieve RAM requirements in the JLTV Purchase Description (Attachment 1). The program shall include all aspects of reliability, availability, and maintainability. The Contractor shall develop engineering processes to ensure a reliable design reflected in a corresponding reliability model. American National Standards Institute document GEIA-STD-0009-2008, including the Checklist for Evaluating Reliability Program Plans, shall be used as guidance for reliability program development. The Contractor shall make available all RAM data for all subcontractor supplied component or subsystem. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.9.2 Reliability Model
The Contractor shall develop and utilize a reliability model for each configuration and trailer within the JLTV. The reliability model shall be complete with reliability predictions, developed with appropriate design tools and processes such as: Fault Tree Analysis (FTA), Failure Modes and Effects Analysis (FMEA), Design Verification Plan & Report (DVP&Rs), Reliability Centered Maintenance (RCM) concepts, Accelerated Life Cycle Testing (ALT), and continual improvement.

Throughout the period of contract performance, the Contractor shall update the reliability model whenever new failure modes are identified or when reliability predictions are impacted by design or manufacturing changes. The Contractor shall consider their reliability growth tracking status when prioritizing correction actions.

The Contractor shall utilize the reliability model to:
(a) Generate and update the reliability predictions from the system level down to lower indenture levels
(b) Aggregate system-level reliability based on reliability predictions from lower indenture levels up to the system level
(c) Manage the reliability predictions, design predictions, current demonstrated reliability, and proposed design change results from engineering analysis as well as component and system test results
(d) Identify single points of failure
(e) Enable the application of proactive tools such as Reliability-Centered Maintenance (RCM) and Condition Based Maintenance Plus (CBM+) (as directed in DODI 4151.22), to optimize system design and respective reliability, availability, and maintainability performance.

This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.9.2.1 RAM Predictions
The Contractor shall develop and provide Reliability and Maintainability (R&M) predictions that correlate with the Contractor

Reliability Model. R&M predictions shall include reliability design predictions for Mean Miles Between Hardware Mission Failure (MMBHMF) and Mean Miles Between Essential Function Failure (MMBEFF) and maintainability design predictions for Maintenance ratio (MR), Mean time to repair (MTTR) and Max Time to Repair (MaxTTR). R&M predictions shall include predictions at the LRU level for the JLTV design at the A-structure armor protection level as well as with the B-kit (levels 1 and 2) installed. R&M predictions shall include failure rates for each LRU and shall further identify whether the individual failure rates are estimated (E), calculated (C), or measured (M). R&M predictions shall be rolled up to the system level. The Contractor shall analyze and update the R&M predictions whenever a design change or manufacturing change occurs. The Contractor shall include R&M predictions in the reliability model. The Contractor shall document any assumptions, boundary conditions and any test or modeling inputs used in developing R&M predictions.

If possible, the Contractor shall generate the R&M predictions by utilizing actual component and subsystem test-generated data with test inputs at least equivalently demanding as the JLTV Operational Terrain (JLTV Purchase Description (Attachment 1)), Annex H). The Contractor may also use previously generated data for COTS items to generate R&M predictions, provided that the testing represented the Operational Terrain environment. The Contractor shall not base their R&M predictions solely on models, on Non-Electronic Parts Reliability Data (NPRD), or on MIL-HDBK-217 data. If inputs used to generate R&M predictions are not representative of the Operational Terrain, then the Contractor shall use an adjustment factor to account for differences between Operational Terrain and actual inputs used. The Contractor shall provide rationale in this CDRL for any adjustment factors.

The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A045)

C.9.3 Reliability Growth

C.9.3.1 Contractor Reliability Growth Plan
The Contractor shall develop and deliver a reliability growth plan IAW the AMSAA Planning Model Based on Projection Methodology (PM2) Reliability Growth Planning Curve Spreadsheet that describes planned reliability growth throughout system design and Government testing (to include Contractor performed and Government performed, reference section C.17.3). The reliability growth plan shall describe how the Contractor will achieve the JLTV reliability requirements in the JLTV Purchase Description (Attachment 1) and show continued growth beyond the reliability threshold throughout LRIP and into FRP. The reliability growth plan shall include a growth curve which shows achievement of at least 1,680 MMBHMF prior to start of the LUT. Refer to the CAP Execution Plan (Attachment 42) for more guidance. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW with the Government provided IMP. (CDRL Data Item A046)

C.9.3.2 Reliability Growth Tracking
The Contractor shall track reliability growth using the AMSAA Maturity Projection Model (AMPM) software tool. The Contractor shall develop and deliver reliability growth tracking curves once system level Reliability Growth testing begins IAW the AMSAA Planning Model Based on Projection Methodology (PM2) Technical Report No. TR-2006-9 (Attachment 26). The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A047)

C.10 RISK MANAGEMENT
Risk management shall be an integral part of all technical reviews, risk review board meetings, periodic program management reviews, meetings, and IPTs. The Contractor shall invite Government representative(s) to participate in monthly Contractor Risk meetings.

C.10.1 Risk Tracking Reports
The Contractor shall develop and deliver Risk Tracking Reports. The Contractor shall systematically identify and analyze all risks, and shall develop mitigation plans for all red and yellow risks as defined in the JLTV Risk Scoring Criteria (Attachment 27). The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A048)

C.11 CONFIGURATION MANAGEMENT (CM)
The Contractor shall maintain a CM process to control all hardware and software configurations including documentation, media, and parts representing or comprising the JLTV. The Contractor shall use ANSI/EIA-649A, IEEE 828, and MIL-HDBK-61A as guidance. The Contractor shall maintain configuration management responsibility throughout the period of performance of this contract. The Contractor's part numbering system shall maintain links to any Original Equipment Manufacturer (OEM) part numbers. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.11.1 Baseline Description Documents
The Contractor shall deliver the Allocated and Initial Product Baselines in separate Baseline Description Documents. Reference the DAG Section 4.2.3.1.6.2. - Establishment of Configuration Baselines as a guide for defining the Allocated and Product Baselines. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A049)

C.11.2 Change Reporting
The Contractor shall use the following classifications for all changes made to the baselines:

Class I: A change to Contractor approved configuration documentation, and:

(a) affects any physical or functional requirement in Contractor approved ALLOCATED configuration documentation, OR

(b) affects Contractor approved PRODUCT configuration documentation AND one or more of the following:

i) Government furnished equipment (GFE),
ii) safety,
iii) compatibility, interoperability, or logistic support,
iv) Contract schedule delay,
v) will require retrofit of delivered units,
vi) interchangeability, substitutability, or replaceability of any item down to non-repairable subassemblies,
vii) sources on a source control drawing,
viii) skills, manning, training, biomedical factors or human engineering design,
ix) Configuration item cost increase.

Class II: All other changes are Class II changes.

C.11.2.1 Change Log
The Contractor shall maintain a change log to track changes and status of each change implementation. The change log shall include: description of changes, parts affected, reason for change, classification of change, status of change (New, In Design, In Validation, Approved, Implemented, Verified), date opened, date closed, deficiencies corrected, associated problems related. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.11.2.2 Baseline Change Notification (BCN)
The Contractor shall provide the Government access to attend the Contractor's change control board.

After the DUR, the Contractor shall submit a BCN to the Government for notification prior to all changes that affect the Allocated Baseline and all Class I changes to the Product Baseline. The Contractor shall maintain configuration authority of the Product Baseline. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A050)

After delivery of the vehicles, the Contractor shall develop an implementation plan for all design changes. The implementation plan shall include a vehicle version naming convention to delineate configurations. The Contractor shall maintain a database after TRR that tracks configuration versions and details each configuration change and rationale for that change. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.12 PRODUCT DATA MANAGEMENT
The Contractor shall possess and utilize a product management system to manage the design and manufacturing development including a quality management system (Ref. Section C.23.1 - Quality Management System) to organize and maintain best practices throughout the organization, during the contract period of performance.

C.12.1 Data Management System
The Contractor shall possess and utilize a product data management system to store, manage access, and track multiple versions and iterations of JLTV designs and related data. The system shall manage digital representations of development product (part and software) items, associated product structures (bill of materials), product definition (e.g. engineering drawings, solid models, specifications and standards, software documentation, schematics), computer-aided engineering (CAE) analysis models, testing and simulation results, and other related documentation. The Contractors data management system shall be discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.12.2 Technical Data Management

C.12.2.1 EMD Technical Data Package (TDP)
The Contractor shall maintain an appropriate level of TDP throughout the execution of this contract using MIL-STD-31000 as a guide. This TDP will form the basis of Change Management for LRIP in the follow-on contract.

C.12.2.2 TDP Cost Estimate
The Contractor shall deliver a cost estimate for Government to obtain Government purpose rights to a Production Level Technical Data Package for the JLTV. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as

well as major reviews IAW the Government provided IMP. (CDRL Data Item A051)

C.12.3 CAD/CAE Technical Data Deliveries

C.12.3.1 Simulation-based Design Model Data
The Contractor shall deliver Simulation-based design Computer Aided Engineering (CAE) model data for each JLTV vehicle configuration IAW the M&S CAE Models (Attachment 28). Prior to submission, the Contractor shall verify that the Top Level Assembly opens without errors. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A052)

C.12.3.2 Developmental Design Technical CAD Data
The Contractor shall deliver Developmental Design Technical CAD Data for each JLTV vehicle configuration IAW the Developmental Design Models Technical Data (CAD Models) (Attachment 29). Prior to submission, the Contractor shall conduct solid model data geometric validation properties (GVP) checks on CAD and CAE solid models to identify part, assembly, and installation shape and fit (geometry and topology) problems that will affect downstream applications, such as analysis, modeling and simulation, rapid prototype, and data exchange. Prior to submission, the Contractor shall verify that the Top Level Assembly opens without errors. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A053)

C.13 ENVIRONMENTAL, SAFETY AND OCCUPATIONAL HEALTH (ESOH)

C.13.1 ESOH Program
The Contractor shall develop, implement, and maintain an ESOH program in accordance with MIL-STD-882D. The ESOH program shall include the following areas: system safety, occupational health, environmental impact, and hazardous materials management.

C.13.2 ESOH Working Group (WG)
The Contractor shall participate in the JLTV ESOH WG which is comprised of subject matter experts from the Contractor and Government communities whose primary focus is to ensure all ESOH issues and hazards are identified and addressed. The Contractor shall host quarterly face to face WG meetings at the Contractor location prior to vehicle delivery and also attend quarterly WG meetings at Aberdeen Proving Grounds (APG) after vehicle delivery. During ESOH WG meetings the Contractor shall present ESOH program status and updates, Hazard Tracking Log (HTL) status and updates, Hazardous Materials usage status and updates, and other ESOH data.

C.13.3 Hazard Tracking Log (HTL)
The Contractor shall prepare a HTL IAW the Hazard Tracking Log Content Requirements (Attachment 30). The Government will provide final disposition for all hazards. Closed out hazards shall remain on the HTL. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A054)

C.13.4 Safety Engineering and Health Hazards

C.13.4.1 Safety Assessment Report (SAR)
The Contractor shall provide a SAR which documents the results of system safety and health hazard analyses, hazard evaluations, and any independent testing. The SAR shall address each configuration and trailer within the JLTV. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A055)

C.13.4.2 Safety Review Support
The Contractor shall provide two SMEs to support two Government Weapon System Explosive Safety Review Board (WSESRB) reviews in the Dahlgren, VA area. Each review will be one day. The purpose of the WSESRB is to review the explosives safety of weapons or explosive systems. During the WSESRB the Contractor shall be prepared to discuss and answer questions about the technical aspects of integrated weapons, active and reactive protection systems, and lithium batteries.

C.13.4.3 Lithium Battery Safety Data Package
If lithium batteries are used in the system design, then the Contractor shall provide a safety data package that documents and demonstrates the stability of the design and validity of the battery selection. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A104)

C.13.5 Environmental Compliance
The Contractor shall ensure that all aspects of the contract execution, including all JLTV hardware, are in compliance with United States Federal, State, and Local environmental regulations and requirements; including activities associated with design, prototype build, test, storage, and disposal.

C.13.6 Hazardous Materials Management
For the purposes of this contract, hazardous materials are defined by FED-STD-313, Section 3.2 Specific Prohibited Hazardous materials

for the JLTV are identified in PDFOV-3576 of the JLTV Purchase Description (Attachment 1). Hazardous materials prohibitions shall apply to all components, parts, and materials provided under this contract, including items purchased through a subcontractor or supplier, COTS components, OEM parts, and manufactured parts.

C.13.6.1 Exceptions to Hazardous Materials Requirements
Waivers from the hazardous materials requirements shall not be permissible except where a suitable alternative does not exist. The Contractor shall present at the SOWM a list of anticipated waivers for any prohibited materials. The Contractor shall submit formal waiver requests to the COR no later than DUR, using the, Request for Use of Prohibited Materials (Attachment 31). Waiver requests shall also include detailed technical justification for the use of prohibited hazardous materials. The Government will make the final determination on whether sufficient justification has been provided to support approval of any waiver requests. The Contractor shall not deliver any items containing prohibited materials without the Government approval of the waiver request.

Beryllium-Copper (in electrical connectors), lead-acid batteries, and lead solder may be used without requesting a waiver from the Government.

C.13.6.2 Hazardous Materials Management Report (HMMR)
The Contractor shall prepare a HMMR in accordance with National Aerospace Standard (NAS) 411, section 4.4. In addition to the hazardous materials delivered and required for operation and support (NAS 411, section 4.4.1), the HMMR shall include Hazardous materials used in the system manufacture and assembly. The Contractor shall discuss status, changes or issues with the HMMR as part of DUR and each Program Management Review. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A056)

C.14 HUMAN SYSTEMS INTEGRATION (HSI) / MANPOWER & PERSONNEL INTEGRATION (MANPRINT)
The Contractor shall conduct a HSI/MANPRINT program in the areas of human factors engineering, manpower, personnel, training, health hazards, safety, and Soldier survivability in accordance with DoDI 5000.02 and AR 602-2.

The Contractor shall participate in the Joint HSI/MANPRINT Working Group (JMWG). The Contractor shall host monthly VTCs, and quarterly face to face JMWG meetings at the Contractor location prior to vehicle delivery and attend quarterly meetings at Aberdeen Proving Grounds (APG) after vehicle delivery. During the JMWG meetings, the Contractor shall present HSI/MANPRINT program status and updates, design data, planned HSI/MANPRINT events, and event findings.

C.14.1 Human Factors Engineering Analysis (HFEA)
For HFE requirements not specifically defined in the PD, the Contractor shall use the design standards contained in MIL-STD-1472, MIL-STD-1474, and MIL-HDBK-759 as a guide for application of human factors engineering practices during the design of the JLTV and applicable components. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A057)

C.14.2 Warfighter Workspace Analysis
The Contractor shall perform and provide a three-dimensional Jack Soldier Workspace Analysis, using the 2015 Land Warrior Body Dimensions (Annex N of the JLTV Purchase Description (Attachment 1) and the correlating 2015 Central 90% Computer Aided Design (CAD) Seven Boundary Condition ARL Jack (TM) Human Figure Models (provided as GFE/GFI per Attachment 36). The analysis shall include diagrams, illustrations, drawings with measurements and files used to perform three-dimensional Jack Soldier Workspace Analysis. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A058)

C.15 SUPPORTABILITY/INTEGRATED LOGISTICS SUPPORT (ILS)
The Contractor shall plan and implement an ILS program addressing all elements of Integrated Product Support:

(a) Product Support Management
(b) Design Interface
(c) Sustaining Engineering
(d) Supply Support
(e) Maintenance Planning & Management
(f) Packaging Handling Storage & Transportation
(g) Technical Data
(h) Support Equipment
(i) Training & Training Support
(j) Manpower & Personnel
(k) Facilities and Infrastructure
(l) Computer Resources

The Contractor shall conduct the ILS effort as an integral part of the design, development and integration process to define the range and depth of the required support, and address all applicable and related elements of logistics.

The Contractor shall use the following reference documents for the ILS EMD areas of support:

i) Logistics Supportability Planning and Procedures in Army Acquisition, DA PAM 700-56, dtd. April 2006,
ii) Logistics Assessment Guidebook, dtd July 2011
iii) Integrated Logistics Support, AR 700-127, dtd 29 April 2009

C.15.1 Maintenance Plan, Analysis, and Reports

C.15.1.1 Level of Repair (LOR) Program
The Contractor shall conduct LOR Program Planning, employing industry best practices and including all system-level repairs, and all subsystem, assembly, and subassembly level candidates for analysis (e.g. designated configuration items (CI)). The Contractor shall examine the Service Components Maintenance Philosophies and respective Military Occupational Specialty (MOS) skill set(s) (Attachment 34, ILS Definitions). The Contractor's examination and analyses shall determine the system, subsystems, assemblies, and subassemblies level of repair and determine if discard is warranted using the latest version of the Computerized Optimization Model for Predicting and Analyzing Support Structures (COMPASS). This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.15.1.1.1 Level of Repair Analysis (LORA) Report
The Contractor shall provide a LORA report, to include all COMPASS input and output data files used in the assessment. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A060)

C.15.1.2 Reliability Centered Maintenance (RCM) Analysis
The Contractor shall perform RCM Analysis, based on the Job Task Analysis below, to identify and document system Operator and Maintainer service tasks based on scheduled and on-condition preventive maintenance requirements. The Contractor shall use the procedures outlined in Society of Automotive Engineers (SAE) JA 1011 and SAE JA 1012 to execute RCM Analysis predicated on the Army and Marines maintenance concepts.

C.15.1.2.1 RCM Report
The Contractor shall provide a final report that will summarize the findings of the RCM analysis and include:

(a) Fully described functions supported by the system under analysis
(b) Subsystems of the System under Analysis
(c) Appropriate and cost effective maintenance policies for the subsystems analyzed
(d) Shortcomings and recommended design changes for subsystems analyzed, if discovered
(e) Realized RCM output data that may be used as input for decision support tools that allow for electronic maintenance diagnosis

The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A061)

C.15.2 Job Task Analysis
The Contractor shall identify, evaluate, and document the mission essential, critical operation, and maintenance tasks of the JLTV system and provide the Job Task Analyses (JTA) identified below:

(a) Mission Task Analysis. The Contractor shall identify and document mission, collective, and individual tasks. The Contractor shall identify and document mission essential tasks as a part of the system analysis, and evaluate the appropriateness and feasibility of system functions and roles allocated to operators and maintainers. The Contractor shall describe the system functions which must be performed to meet the system objectives within the mission context. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A062)

(b) Workload Analysis. The Contractor shall conduct Workload Analyses to validate the suitability of the projected number of personnel and the team composition to perform required missions, maintain systems and equipment, and provide necessary technical, engineering, material, logistics, and administrative support. The Workload Analysis may include IMPRINT, spreadsheet, and paper-based modeling. The Contractor shall evaluate the workload execution of representative scenario(s) placed on the planned operators, maintainers, and support personnel. The reports shall summarize the workload analysis methodology, assumptions, data sources, results, and recommendations for human tasks vital to the operation and maintenance of the system. The Contractor shall conduct this analysis in coordination with Manpower analysis and estimations. The Contractor shall conduct workload analysis during various human test opportunities to verify performance and validate previous workload models. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A063)

(c) Skills Analysis. The Contractor shall conduct a Skills Analysis to document the knowledge, skills, and attitudes necessary for

the operators, maintainers, and support personnel to execute all anticipated missions and tasks. The Contractor shall conduct the analysis to validate the suitability of the number of personnel and the various combinations of knowledge, skills, and attitudes required. Within the Skills Analysis, the Contractor shall define the training process and capabilities required to ensure the knowledge, skills, and abilities can be developed and maintained. The Contractor shall coordinate the Skills Analysis results with training material, approaches, and methods. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A064)

C.15.3 Operator Manuals
The Contractor shall provide Operator Manuals (OMs) that support the planned evaluation events.

The OMs shall represent:

(a) Operations (to include driving restrictions) and Operator/Crew Maintenance necessary to support the configuration of the vehicle being tested.
(b) Preventative Maintenance Checks and Services (PMCS); the Contractor shall develop and prepare operator PMCS for each variant that ensures safe vehicle operation and preclude avoidable vehicle wear or damage. The sequence of the PMCS shall be ordered to complete the process with one pass around the vehicle.
(c) Vehicle Commander Interfaces and operations of the Vehicle Commander's Smart Display Unit (CSDU).

The Contractor shall submit a Validation Certificate with the final delivery of the OMs. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews. (CDRL Data Item A065)

C.15.4 Copyright License
In each contract deliverable, the Contractor shall identify any item of third party Copyrighted Material. In addition to complying with the requirements of DFARS 252.227-7013(d) and 252.227-7014(d), the contractor or subcontractor must also provide to the Government a copy of each copyright license identified under these subsections (d). When the Contractor will deliver commercial technical data relating to a Subcontractors or third party suppliers components or portions thereof, and that commercial technical data contains copyright material, the Contractor shall be responsible for obtaining a copyright release, suitable for all usual and proper governmental purposes related to the vehicles, from the Subcontractor or third party supplier, and furnishing such copyright release to the Government. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A066)

C.15.5 Packaging Data
The Contractor shall develop packaging data in accordance with (IAW) MIL-STD-2073-1D (1) (hereafter shown as MS2073), DoD Standard Practice for Military Packaging, and all appendices for the End Item and all repairable components. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.15.5.1 Special Packaging Assessment
The Contractor shall conduct an assessment to determine if new or existing commercially available reusable container designs are suitable for JLTV subassemblies and components. The Contractor shall validate preservation processing and packaging as well as assess form, fit, and function for selective and special group items. The Contractor shall compare costs to modify existing designs or alternate new designs. The Contractor shall develop a proposed container approach if a new or modified commercially available reusable container is required. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.15.6 Diminishing Manufacturing Sources and Material Shortages (DMSMS) Management Plan
The Contractor shall develop and deliver to the Government, a DMSMS Management Plan for managing the loss, or impending loss of manufacturers or suppliers of parts and/or materials IAW DoD 4140.1-R, (chapter C 3.6) and DoD DMSMS Guidebook (SD-22) November 2006. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A069)

C.15.7 Markings
Each IUID marking shall consist of a Unique Item Identifier (UII) encoded within a two-dimensional data matrix symbol. The IUID data matrix shall include human and machine-readable information markings. The CAD drawings shall incorporate the IUID marking and location. For proof of principle, the Contractor shall only apply IUID markings to each vehicle, trailer and the following Subassemblies, if installed:

- Engine
- Transmission
- Integrated Starter Generator (ISG) or similar
- Transfer Case
- Steering Gear Box
- Differential Assembly

For purposes of this contract, Clause 252.211-7003, paragraph (c)(1)(i) shall only apply to the vehicles and trailers, for proof of

principle. Clause 252.211-7003, paragraph (c)(1)(iii) applies to the Subassemblies, if installed, listed above. An example of the IUID marking shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.15.8 Load Plan
The Contractor shall develop and deliver a Load Plan (including schematics) that details optimum vehicle locations for all payload items in the JLTV Purchase Description (Attachment 1), for each JLTV configuration at GVW and GCVW. The Load Plan schematics shall be developed using computer aided engineering software tools. The Contractor shall ensure that the Load Plan is a realistic stowage of items while maintaining functional usage of vehicle. Items shall be stowed as not to interfere with normal operation of vehicle including ingress and egress. The Government intends to conduct testing with the vehicles configured IAW this Load Plan. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A070)

C.15.9 Commonality Matrix
The Contractor shall submit a completed Commonality Matrix (per Attachment 35, Commonality Matrix) for each JLTV configuration, to identify the commonality of the JLTV within the JLTV and DoD vehicles. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A071)

C.16 GOVERNMENT FURNISHED EQUIPMENT (GFE) INTEGRATION AND GOVERNMENT FURNISHED INFORMATION (GFI)

C.16.1 GFE Integration
The Contractor shall integrate all applicable Government Furnished Equipment and Government Furnished Information provided IAW the GFE/GFI List (Attachment 36). Integration shall include software and hardware, providing space, power, weight allocation, heat rejection, cabling & cableways, through hull connections, and all other hardware & software interfaces necessary to meet the requirements as stated in the JLTV Purchase Description (Attachment 1). Dependent on design, the Contractor may be able to leverage complete GFE kits to fully perform integration, or the Contractor may need to provide new integration items (e.g. brackets, wiring). The Contractor shall integrate the current version of Software GFE/GFI as of the first SIL Demonstration (Section C.7.5). Throughout contract performance, the Contractor shall integrate updated versions of Software GFE/GFI, in the SIL and on all vehicles, for critical fixes or significant functionality improvements, when provided by the Government.

C.16.2 GFE/GFI Delivery
The Government will provide the GFE/GFI IAW the schedule outlined in the GFE/GFI List (Attachment 36). At the SOWM, the Government will provide the technical integration data or required Points of Contact (POCs) to receive proprietary information and data related to the GFE/GFI.

C.16.3 External Agreements
The Contractor shall establish Non-Disclosure Agreements (NDAs) and/or Memorandum of Agreements (MOAs) with non-PM JLTV organizations (both Government and Commercial), as required to receive data and integrate GFE/GFI. At the SOWM the Government will provide, at a minimum, the list of organizations with which the NDAs/MOAs may need to be arranged. These agreements will allow the Contractor to receive controlled technical integration data and facilitate direct technical collaboration in order to integrate GFE/GFI into the JLTV as identified in the JLTV Purchase Description (Attachment 1). Progress of NDAs/MOAs shall be discussed at the PMRs.

C.17 VERIFICATION AND VALIDATION ACTIVITIES

C.17.1 Contractor System-Level Verification Testing
The Contractor shall perform System-Level Verification Testing consisting of Break-in Testing, and Shakedown Testing (SDT), as detailed below. The Contractor shall provide 14 day advance notice and an invitation to the Government PMO to witness any Contractor System-Level testing. The Contractor shall confirm the event schedule three business days prior to event. The Contractor shall successfully complete the System-Level Verification Testing prior to pre-TRR.

C.17.1.1 Break-In Testing
The Contractor shall define break-in test procedures and conduct Break-In Testing on every deliverable vehicle and trailer to address all wear-in activities and procedures required before normal vehicle operation. Break-In Testing shall include a minimum of 500 miles per vehicle and 200 miles per trailer, over primary road surfaces IAW the JLTV Purchase Description (Attachment 1), Annex H. Break-In Testing shall confirm basic vehicle mobility-related functionality, including starting, stopping, turning, as well as providing confirmation of safe vehicle operation. Break-In Testing shall ensure that no additional wear activities are required prior to Government acceptance. Break-in activities shall cover all component, subsystem, and system level break-in such as: low speed operation, limited load operations, torque adjustments, brake burnishment, suspension calibration, ESC calibration and any other checks or actions to ensure full vehicle serviceability at vehicle delivery.

C.17.1.2 Shakedown Testing
The Contractor shall perform Shakedown Testing (SDT) to ensure workmanship and infant-mortality issues are surfaced and addressed. SDT

shall be conducted following Break-In Testing on the vehicles and trailers designated for RAM testing IAW the EMD Vehicle Configuration and Allocation Matrix (Attachment 37). SDT shall consist of 1000 miles on each of these vehicles and trailers, consisting of 500 miles over secondary surfaces and 500 miles cross-country IAW with the JLTV Purchase Description (Attachment 1), Annex H. SDT shall be conducted with vehicles configured IAW Attachment 37, and performed IAW RAM Duty Cycles (Attachment 40).

C.17.1.3 System-Level Verification Test Plan
The Contractor shall develop a test plan that addresses all system-level verification testing described in Section C.17.1. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A072).

C.17.1.4 System-Level Verification Test Findings
The Contractor shall conduct root cause analysis and define corrective actions for all deficiencies (e.g. build issues, quality discrepancies, hardware failures, or software failures) identified during System-Level Verification Testing, The Contractor shall record and classify each finding as informational, minor, major, or critical (as defined in AR 73-1), and record the failure level IAW the Failure Definition and Scoring Criteria (FDSC) (Attachment 38).

During System-Level Verification Testing, the Contractor shall conduct weekly meetings with the Government to review any major or critical level test deficiencies. The Contractor shall determine and execute applicable corrective actions, initiating their appropriate change management processes (e.g. engineering, material, manufacturing) to implement and validate the corrective action(s) and update FMEAs as required.

C.17.1.5 System-Level Verification Test Refurbishment
At the conclusion of the System-Level Verification Testing but prior to Government Acceptance, the Contractor shall inspect and refurbish all deliverable vehicles and trailers. The refurbish process shall consist of the following:

(a) The Contractor shall replace all Petroleum, Oil, and Lubricants (POL), all filters, and any other wear component with less than 50% life remaining.
(b) The Contractor shall replace all tires on all RAM vehicles, regardless of remaining tire life.
(c) The Contractor shall make all changes, modifications, and repairs to the JLTV test assets necessary to correct deficiencies identified during testing. Deficiencies include those described in Section C.17.1.4, plus any others identified and desired to be fixed by the Contractor.
(d) The Contractor shall repair and repaint major scratches, scrapes, or dents (of sufficient severity to cause operational issues).
(e) Any desired exceptions to a. - d. above shall be discussed with the Government on a case by case basis.

The Contractor shall make this information available for review by the Government during the weekly meetings that will occur throughout the System-Level Verification testing.

C.17.1.6 System-Level Verification Test Report
The Contractor shall provide a System-Level Verification Test Report. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A073)

C.17.2 Requirements Verification for Certification or Analysis Requirements
The Contractor shall provide copies of Certifications for all specified "Certification" requirements IAW Section 4 of the Purchase Description (Attachment 1). The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A074)
The Contractor shall provide a separate data submission to support Government Analysis for each specified "Analysis" requirement IAW Section 4 of the Purchase Description (Attachment 1). The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well at major reviews IAW the Government provided IMP. (CDRL Data Item A075)

C.17.3 Government Testing
Throughout Government testing, the Contractor shall be responsible to ensure JLTV test readiness and proper configuration (e.g. kit installs, parts availability, repairs, maintenance, including the availability of Petroleum, Oil, and Lubricants (POL), all filters, and any other wear components required for maintenance) for maximum operational availability throughout Government Testing. Prior to initiating steering and handling, and braking performance tests, the Contractor shall replace the tires (steering and handling) and brake pads and rotors (braking) on each vehicle involved in these performance tests (estimated 4 vehicles for each of these tests). The Contractor shall also have one extra set of wheels only (no tires) available during testing to facilitate tire change-out. This is in addition to the replacement parts needed to support the remaining tests for all test vehicles. Support of test assets is the responsibility of the Contractor. For contractor furnished material, parts, or equipment installed or incorporated on to Government owned test assets after inspection and acceptance of the test assets, (Refer to special clause H.10 of this contract).

Government Testing, referenced in the below sections, will be conducted to validate Contractor compliance in accordance with Section 4 of the Purchase Description (Attachment 1). The Government is not obligated to conduct any retest. The EMD Vehicle Configuration and Allocation Matrix (Attachment 37), contains the planned test sites, schedule, estimated test durations, and types of tests that will require Contractor support. Each planned test duration is subject to a schedule variance of 30 days. These test details are subject to change at the Government's discretion.

C.17.3.1 Contractor-Performed Government Testing
The Contractor shall perform Performance and RAM testing as specified below, IAW the test vehicle configuration and test timing described in Attachment 37. The Contractor shall perform this testing at a Government test site, or a non-Government test site audited by the Government to ensure site is appropriate for performing the Government testing outlined in this section, as outlined in the data required in the contractors test plan (CDRL A076). The contractor shall develop and provide a test plan for this testing effort. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP (CDRL Data Item A076). Criteria that the Government will be using to make a determination as to the suitability of the test equipment are as follows:

1. Cold/Hot Start, Heater Performance, Air Conditioning Performance, Defroster Performance:

a) Access to environmental test chamber with following attributes:

i) Of suitable size to accommodate JLTV vehicle of any configuration (as indicated in Attachment 37)
ii) Operational temperature range from -40F to 125F
iii) Able to operate engine in stationary vehicle throughout full operational range (rpm) within the chamber
iv) Able to start a vehicle via NATO slave receptacle
v) Data acquisition capable of capturing data necessary to verify compliance with PDFOVs indicated below in 17.3.1.1

2. Power Generation and Management:

a) Access to load banks capable of simulating power loads as required in PDFOVs indicated in 17.3.1.1
i) Separate load banks for AC and DC power capable of dissipating 10kW each
ii) Each load bank shall be capable of dynamic switching from 0% to 100% load. (in at least 5% increments)
iii) The DC load banks shall be required to interface with the vehicle using the test harnesses created for power testing. (ref. C.18.3.1)

b) Ability to simulate terrain loading as specified in PDFOV-1228 (and further detailed in Annex H of PD) via simulator (dynamometer or equivalent)

c) All Test and measuring equipment (detailed in A076) capable of:
i) Monitoring energy (current, voltage, and time) into and out of the energy storage device
ii) Measuring all the parameters necessary to conduct testing to MIL-STD-1275
iii) Supplying power to the vehicle through the NATO slave receptacle
iv) Measuring isolation between electrical buses
v) Any other special test equipment necessary to test the requirements indicated in C.17.3.1.1

3. Run Flat Testing test course layout must allow for vehicle to maintain 20mph for 18 continuous miles over a paved road (winding or non-winding). Must have capability to puncture tires IAW FINABEL 20.A.5

4. RAM Testing must have capability of conducting RAM testing IAW ITOP 2-2-506, with the exception that test course described in 4.a. is superseded by the Operation Terrain outlined in Annex H of PD. Test site must have instrumentation capability as described in paragraph 2.2 in referenced ITOP.

The Contractor selected test site shall perform test data collection. The Contractor shall provide 14 day advance notice and an invitation to the Government PMO to witness any Contractor-Performed Government Testing. The Contractor shall confirm the event schedule three business days prior to event. With the exception of the Facility Vehicle described in Section C.21, all test vehicles and GFE shall be returned to the Government at the conclusion of the Contractor-performed Government testing.

The Contractor shall develop and provide a test plan for this testing effort. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A076)

During this testing, the Contractor shall document and provide records of all test events and deficiencies IAW AR-73-1. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A077)

C.17.3.1.1 Contractor-Performed Government Performance Testing

The Contractor shall test the requirements listed below IAW Section 4 of the JLTV Purchase Description (Attachment 1).

(a) Environmental Testing (Hot and Cold)
Cold/Hot Start:
1) PDFOV-902 - Start
2) PDFOV-903 - Start
3) PDFOV-3942 - Engine Arctic Kit
4) PDFOV-3529 - Automatic Starting Aid

(b) Heater Performance:
1) PDFOV-916 - Heater
2) PDFOV-8147 - Heater

(c) Air Conditioning Performance:
1) PDFOV-928 - Air Conditioning
2) PDFOV-6987 - Air Conditioning

(d) Defroster Performance:
1) PDFOV-924 - Defroster

(e) Runflat Testing
1) PDFOV-1142 - Run-Flat Kit (note this testing shall be performed without trailer)
2) PDFOV-6901 - Run-Flat Kit
3) PDFOV-8851 - Run-Flat Kit

(f) Power generation and Management:
1) PDFOV-2573 - General
2) PDFOV-2581 - General
3) PDFOV-2583 - General
4) PDFOV-4316 - General
5) PDFOV-4318 - General
6) PDFOV-7844 - General
7) PDFOV-7847 - Low Voltage Distribution
8) PDFOV-1224 - DC Power Source/ On-board Electrical Power Requirement
9) PDFOV-1226 - DC Power Source/ On-board Electrical Power Requirement
10) PDFOV-1228 - DC Power Source/ On-board Electrical Power Requirement
11) PDFOV-7848 - DC Power Source/ On-board Electrical Power Requirement
12) PDFOV-1253 - Depleted Energy Storage Engine Start
13) PDFOV-1255 - Depleted Energy Storage Engine Start
14) PDFOV-6872 - Energy Storage
15) PDFOV-8489 - Energy Storage
16) PDFOV-8492 - Energy Storage
17) PDFOV-8531 - Energy Storage
18) PDFOV-1261 - Energy Storage
19) PDFOV-2586 - Power Management System
20) PDFOV-2588 - Power Management System
21) PDFOV-8494 - Power Management System
22) PDFOV-7394 - Power Interface for COTS
23) PDFOV-7851 - Power Interface for COTS
24) PDFOV-8497 - Power Interface for COTS
25) PDFOV-7853 - Power Interface for COTS
26) PDFOV-2618 - Power Interface for COTS
27) PDFOV-2622 - Power Interface for COTS
28) PDFOV-2655 - NATO Slave Interface
29) PDFOV-8606 - NATO Slave Interface
30) PDFOV-7619 - NATO Slave Interface
31) PDFOV-1234 - Exportable Electric Power Kit
32) PDFOV-7616 - Exportable Electric Power Kit
33) PDFOV-1238 - Exportable Electric Power Kit
34) PDFOV-8460 - Exportable Electric Power Kit

C.17.3.1.2 Contractor-Performed Government Reliability, Availability, and Maintainability (RAM) Testing
The Contractor shall conduct three months of RAM Testing with a minimum of 4,000 miles, a goal of 8,000 miles, over the Operational Terrain IAW the JLTV Purchase Description (Attachment 1, Annex H), and IAW RAM Duty Cycles (Attachment 40).

C.17.3.2 Government-Performed Testing

C.17.3.2.1 RAM
RAM testing will be conducted at the test sites indicated in EMD Vehicle Configuration and Allocation Matrix (Attachment 37) for a planned cumulative total of 160,000 miles (20,000 miles per vehicle x 8 vehicles). Vehicles planned for RAM testing, and their planned test configurations, are also indicated in the EMD Vehicle Configuration and Allocation Matrix (Attachment 37). Course terrain profiles are in the JLTV Purchase Description (Attachment 1, Annex H). Duty cycles and payload configurations are indicated in RAM Duty Cycles (Attachment 40).

C.17.3.2.2 Performance Testing
Performance testing will be conducted on the specific test vehicles indicated in EMD Vehicle Configuration and Allocation Matrix (Attachment 37) which also details the test sites and duration.

C.17.3.2.3 RESERVED

C.17.3.2.4 Limited User Testing (LUT)
The LUT will be conducted using performance vehicles at a location determined by the Operational Test Agency (OTA), and performed within the constraints specified by the U.S. Army Evaluation Command (AEC) and USMC PEO-LS safety release processes. The duration of the LUT is defined in Attachment 37. The Contractor shall be responsible for conducting all maintenance beyond Operator/Crew during the LUT. Prior to the start of the LUT, after completion of previous (pre-LUT) testing, the Contractor shall conduct refurbishment on all LUT vehicles to the same level specified in C.17.1.5.

C.17.3.3 Corrective Action Period (CAP)
CAPs are pre-defined blocks of time during Government testing to allow for Contractor implementation of design updates (e.g. engineering changes, part replacements, software updates) across RAM test vehicles. The Contractor shall implement these updates to Performance test vehicles as soon as possible with minimal test schedule disruption. Performance test vehicles will not have specifically defined CAPs. The Contractor may utilize CAPs to implement design updates previously reviewed with the Corrective Action Review Team (CART) as described in Section C.19. CAP duration and timing are defined in the CAP Execution Plan (Attachment 42). Each update may only be implemented if all RAM vehicles and trailers can be completed during the allotted CAP period. Corrective actions taken by the Contractor are at the Contractors discretion and the Contractor should consider, prior to implementation, the impact the corrective action may have on prior testing.

C.17.4 Contractor Support Facilities at Government Test Sites
The Government will provide the Contractor office space at:

- Yuma Test Center, Yuma, AZ, USA;
- Aberdeen Test Center, Aberdeen, MD, USA;
- One or more of the following locations to support C4ISR interoperability testing: Electronic Proving Grounds (EPG) Fort Huachuca, Arizona; White Sands Missile Range (WSMR), New Mexico; Yuma Test Center (YTC), Yuma Proving Grounds (YPG), Arizona);

The Government will provide these office facilities 14 days prior to vehicle delivery through the end of testing at each of these test locations.

Office space will be furnished with two desks, two phone lines, and storage area for CONEX boxes as required. If space for additional CONEX containers is required, beyond the number initially provided, or for additional test sites not indicated in this section (C.17.4), the Contractor shall negotiate directly with Test Centers.

C.17.5 Contractor Support for Government Testing

C.17.5.1 Training
The Contractor shall provide a single point of contact for all training requirements. The Contractor shall develop a training package that addresses the requirements of Section C.17.5.1.1 - 17.5.1.3.3 below. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A078)

C.17.5.1.1 Training Program Structure Document (Curriculum Outline of Instruction)
As part of the Training Package (reference CDRL Data Item A078), the Contractor shall include the Training Program Structure content (Curriculum Outline of Instruction (COI)) to address the key training events outlined in Section C.17.5.1.4. The COI shall identify the training schedule of events and include a breakdown of individual topics showing the purpose, learning objectives, time allotted for each session, academic hours by type of instruction, instructional materials required, facility and instructor requirements, media and training support equipment, reference materials, type of instruction (practical exercise, demonstration, lecture), and tools and Test, Measurement and Diagnostic Equipment (TMDE) required for each period of instruction.

C.17.5.1.2 Training Test Package
As part of the Training Package (reference CDRL Data Item A078), the Contractor shall include the training test documentation that

includes written and performance tests for the examination of an individual's knowledge, skills, attitudes, and achievement of terminal. Written test items shall consist of multiple choice, matching, and fill-in-the-blank questions. The test questions shall be written to evaluate the student's comprehension of knowledge-based learning objectives, and the Test Packages shall include a minimum of three test questions for each learning objective. The Contractor developed performance tests shall evaluate the student's ability to perform specific operator/crew tasks and be presented in checklist format.

C.17.5.1.3 Training Support Packages (TSPs)
As part of the Training Package (reference CDRL Data Item A078), the Contractor shall include all training materials and ensure Training Support Packages support all phases of Operator/Crew training for JLTV. The Contractor shall use the following as guidance: MIL-HDBK-29612-2, Instructional Systems Development/Systems Approach to Training and Education and TRADOC Regulation 350-70 Systems Approach to Training (SAT) Management, Processes, and Products. The Contractor shall emphasize hands-on instruction and use of the actual equipment for the conduct of training and to assess student performance. The Contractor shall develop one comprehensive TSP for Operator/Crew training to support the conduct of all training events. The Operator/Crew training and related TSP shall also address the commander's roles and responsibilities. The Contractor shall ensure each TSP consists of multiple lessons plans with supporting Trainee Guides and Visual Aids (described in 17.5.1.3.2 and 17.5.1.3.3 below) as determined by the selection of tasks to be trained and as identified in the Curriculum Outline of Instruction (reference C.17.5.1.1). The Contractor shall utilize the comprehensive Operator/Crew TSP and tailor each to support the training events.

C.17.5.1.3.1 Lesson Plans
The Contractor shall develop and provide Lesson Plans to trainees during training events. Lesson plans shall be sequenced and contain information relevant to each period of instruction, including the following:

(a) Administrative data, (tasks to be trained, academic hours, methods/media, student-instructor ratios, references and resources required),
(b) Training objectives,
(c) Instructions for the safe delivery of training,
(d) Media cues,
(e) Application of training visual aids,
(f) Conduct of demonstration
(g) Practical application exercises.

C.17.5.1.3.2 Trainee Guides
The Contractor shall develop and provide Trainee Guides to trainees during training events. The Trainee Guides shall contain information that enhances the student's mastery of tasks, and shall provide information and summaries relevant to each period of instruction to include training objectives and technical references.

C.17.5.1.3.3 Visual Aids
The Contractor shall develop visual aids, such as slides and graphic media, to be used by instructors in the conduct of training and that enhance the transfer of knowledge to the students and their mastery of tasks. Visual aids shall provide information relevant to each period of instruction to include training objectives and technical references.

C.17.5.1.4 Conduct of Training
The Contractor shall conduct training courses by employing standard techniques of military instruction. The Contractor shall use TRADOC Regulation 350-70 Systems Approach to Training (SAT) Management, Processes, and Products as a guide. Training courses shall employ various instructional methods (e.g. lectures, demonstrations, and practical applications). Each course shall emphasize practical application hands-on training. The student-to-instructor ratio shall not exceed 25:1 for lectures with a maximum of 50 students for each period of instruction, and shall not exceed 5:1 for hands-on training, practical exercises, and practical application. All training courses shall make maximum usage of the Technical Manuals (TMs) and actual equipment. Training related to operation of integrated GFE shall focus only on aspects of the integration of the equipment into the platform and not on the operation and maintenance of that GFE. Government personnel selected to receive training will have the prerequisite knowledge and skills necessary to operate GFE.

Training shall be conducted on weekdays (Monday through Friday), unless otherwise required and mutually agreed between the Government and the Contractor. Individual course length shall be determined by the number and complexity of the tasks to be trained and shall not to exceed 40 hours for Operator/Crew training unless otherwise specified in the test event in this section. The length of each training day shall not exceed eight hours of instruction. The Contractor shall coordinate access with the test sites to maximize the available time before start of testing for the conduct of training. For example, the Contractor is allowed to conduct the classroom portion of the training prior to the actual delivery of the vehicles.

The Government will provide classroom space, training equipment, computing resources, required common tools, and TMDE.

C.17.5.1.4.1 Tester Training - Operator/Crew
The Contractor shall conduct Operator/Crew Tester Training courses in support of testing at the locations indicated on test schedule contained in the EMD Vehicle Configuration and Allocation Matrix (Attachment 37). The Contractor shall only conduct one training event at each of the test sites indicated as Training required in Attachment 37 (with the exception of LUT training see 17.5.1.4.2 below). The course shall include tasks associated with proficient and safe operation of the JLTV during test and evaluation. The Government

will confirm training dates at least 30 days in advance.

C.17.5.1.4.2 Limited User Testing (LUT) - Operator/Crew
The Contractor shall conduct Operator/Crew training courses in support of Limited User Testing (LUT), at the LUT location indicated in the EMD Vehicle Configuration and Allocation Matrix (Attachment 37). These training sessions are anticipated to be 40 hours (5 days) in duration, and will occur a the LUT site in four distinct, non-concurrent sessions, with each session being presented to a different user group. The Government will notify the Contractor at least 45 days in advance for training.

LUT Operator/Crew training shall cover the JLTV system's capabilities, functions, limitations, interfaces, and operation of the JLTV in a tactical environment. Training shall also cover the daily operator/crew level preventive maintenance for the JLTV system and components per the maintenance concepts for both services (Attachment 34, ILS Definitions). Upon completion, the hands-on instruction shall enable the student to:

(a) operate the system, subsystem, and equipment controls
(b) demonstrate knowledge of general equipment functions and operations
(c) perform system checks and verification procedures
(d) operate the integrated GFE interfaces

The course shall ensure the students receive the necessary hands-on instruction and driving time needed to enable proficient and safe operation of the JLTV during test and evaluation.

C.17.5.2 Field Service Representative (FSR)
The Contractor shall provide dedicated FSR support at test sites concurrently where testing is being performed, for the purpose of maintaining, repairing test assets, and reconfiguring test assets with GFE/CFE (e.g. radios, displays, B-Kit armor, or GPK) throughout the Government EMD test period whenever Government EMD testing is being performed. Refer to the EMD Vehicle Configuration and Allocation Matrix (Attachment 37) for test duration, location and types. The Contractor shall also provide dedicated FSR support for the ballistic testing of armor structures outlined in C.18.2.2. Ballistic testing of armor structures will be accomplished at the delivery location in Section F, and is estimated to be six months in duration immediately following delivery of these structures. FSR support is not required for coupon testing. FSRs shall be onsite at test site when vehicles arrive to address discrepancies as well as reconfigure the vehicle GFE/CFE for weight evaluations. For test sites working multiple shifts, dedicated FSR support shall be provided for each shift. At the completion of testing, the FSRs shall be responsible for removal of GFE from the vehicles and coordinating storage with the test sites.

Each vehicle is scheduled to undergo two ballistic or blast events, and the Contractor shall provide test asset repair support between these events. Between events, the Contractor shall repair these vehicles to a condition that allows for realistic assessment of accelerative load inputs to crew during blast events. In addition, vehicle armor shall be replaced or repaired to such an extent that no damage remains in areas on and around ballistic threat area for any upcoming events.

Maintenance shall be performed within the test site operating hours as defined below. However, when critical safety or catastrophic failure occurs, the Contractor can request from the Government additional test site facilities and personnel (data collectors and drivers at a minimum) to support additional hours of maintenance outside the base work day in order to facilitate more rapid repairs. All requests must be made as soon as practical to the PMO, but due to time and resource constraints, may not always be able to be granted by the Government.

The FSR(s) shall be knowledgeable in the fabrication, assembly, and operation of the vehicle in order to minimize down time. FSR(s) shall have sufficient knowledge to provide technical support for the following:

- Vehicle Displays,
- Computers,
- C4ISR,
- Electrical Systems,
- Mechanical Systems,
- Ballistic and Blast testing.

Government Performance Testing is planned for one shift of 10 hours per day, for up to six days per week. Government RAM Testing is planned for two shifts of 10 hours each per day, for up to six days per week.

C.17.5.3 System Support Management Strategy
The Contractor shall develop and conduct a system support management strategy. The Contractor's strategy shall minimize test down time. The strategy shall include a plan for providing parts to resolve issues and failures with test assets and ensuring assets can maintain the test schedule at each test location. The strategy shall identify special test equipment, tools, special lubricants required for testing and describe current calibration of required support equipment. All spare or replacement parts shall be marked or tagged with the contractors part number. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.17.5.3.1 System Support List (SSL)
The Contractor shall provide a System Support List (SSL). The SSL shall be an itemized listing of the resources used for test site support. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A081)

C.17.5.3.2 Spare Parts Storage
Where necessary, the Contractor shall provide the CONEX container(s) for storage of spare parts at test sites.

C.17.6 Test Design Data for Government Testing

C.17.6.1 Wiring Harness Design for Power Testing
The contractor shall provide wiring harness designs for all vehicle configurations that allows the Government to connect load banks to all locations in the vehicle where power can be drawn from the 28VDC On-board Vehicle Power (OBVP) system. The harness shall be capable of carrying the maximum current each attachment point is designed to provide. If the sum of the power that can be drawn from the connection points (e.g. outlets, terminal blocks) required by the JLTV Purchase Description (Attachment 1) is less than the threshold requirement in PDFOV-1224, the Contractor shall specify additional connection point(s) and supply an additional test harness (with each vehicle) designed to draw the remaining load in order to achieve the full power threshold. No later than 90 days prior to pre-TRR, the Government will provide the required length and harness interfaces necessary to connect to the Government load banks for testing. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A085)

C.17.6.2 Outrigger Designs for Performance Testing
The Contractor shall develop and provide outrigger designs and interfaces for all vehicle configurations. The Contractor shall collaborate with the JLTV Program Office concerning the requirements and design of each outrigger set. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A086)

C.17.7 Reserved

C.17.8 NATO Engine Testing - 400 Hour
The Government will conduct a modified 400 hour NATO Engine Test (reference Allied Engineering Publication (AEP)-5 NATO Standard Engine Laboratory Test, Part II for Diesel and Spark Ignition Engines, May 1988) with a Contractor engine (ref. Section C.18.3.3) operating on JP-8 fuel and in desert like operating conditions (DOC). DOC is defined as 120 degree F ambient, a fuel supply temperature determined by the Government based on the engine's fuel system and any vehicle level fuel cooling, and a Charge Air Cooler (CAC) outlet temperature determined by the Government based on the vehicle installation capacity of the CAC.

C.17.8.1 Engine Test Support

C.17.8.1.1 Engine Test Support Package (TSP) List
The Contractor shall provide an Engine TSP List for the supplied engine. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A101)

C.17.8.1.2 Engine Test Support FSR
The Contractor shall provide on-call availability test support during the Government 400 hour NATO Engine Test. The Government 400 hour NATO test period is anticipated to run seven days a week, two 8-hour shifts. The FSR shall respond to the Warren, MI facility within 24 hours after a Government request. Testing will begin upon delivery of the engine, and is expected to continue for four months. Engine TSP Items used shall be replenished by the Contractor within 48 hours of usage.

C.17.8.1.3 Tools and Test Equipment
The Contractor test support personnel shall utilize existing Government tools and test equipment to the maximum extent feasible throughout the NATO Engine Test.

C.17.8.1.4 Detailed Engine Information Package
The Contractor shall provide a Detailed Engine Information Package. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A034)

C.18 HARDWARE DELIVERABLE REQUIREMENTS
The Contractor shall meet all hardware deliverable requirements identified in Section E.1 prior to Government acceptance of hardware to enter Government test. The Contractor shall ensure all non-vehicle hardware deliverables (Sections C.18.2 C.18.3.3) correspond with the design of the delivered JLTV.

C.18.1 JLTV Test Assets

C.18.1.1 Vehicle
The Contractor shall fabricate, test, and deliver all JLTV configurations and quantities identified in the EMD Vehicle Configuration and Allocation Matrix (Attachment 37). Vehicles shall be delivered in Left Hand Drive operation. Following vehicle delivery the Contractor shall reconfigure three Government selected vehicles to curb weight. The Contractor is responsible for ensuring vehicles are configured in the same manner as when previously weighed at Contractor site for curb weight verification.

C.18.1.2 Reserved

C.18.1.3 Trailer
The Contractor shall fabricate, test, and deliver the JLTV-T in the quantities defined in the Vehicle Configuration and Allocation Matrix, (Attachment 37).

C.18.2 Armor Test Assets

C.18.2.1 Armor Coupon Sets
The Contractor shall deliver to the Government an armor coupon set, in the quantities indicated in Section F.2.2, for each transparent, opaque, and Explosively Formed Penetrator (EFP) armor, recipe required to satisfy the protection levels defined in the JLTV Purchase Description (Attachment 1). Each recipe constitutes a unique set, such as different frontal, flank, rear, underbody, and roof armor recipes, according to the Contractor's design. The Contractor shall include a diagram of the vehicle with the coupon delivery that identifies the correlating location of each armor recipe. The Contractor shall label each coupon with the Contractor's name, vehicle configuration, location of solution on the vehicle (e.g. frontal, flank, underbody), and the attack/strike side.

C.18.2.1.1 Transparent Armor (TA)
The Contractor shall provide transparent armor coupons in the quantities indicated in Section F.2.2. Each TA coupon shall be 400mm by 400mm in size, with a +/- 5mm tolerance on each linear dimension.

If the actual component design is smaller than the prescribed minimum dimensions, coupons shall be delivered in the actual dimensions and include the designed window frame.

C.18.2.1.2 Opaque Armor (OA)
The Contractor shall deliver the OA coupons in the quantities indicated in Section F.2.2 and in the sizes specified below, depending on the type of material (e.g. metallic, ceramic, composite) and level of protection (e.g. B-kit, A-structure, EFP).

The Contractor shall deliver Protection Level 1 and Protection Level 2 B-kit solutions bolted to the appropriate A structure coupons near each corner. Each bolt center shall be located at least 1-1/4" from each edge (at corner) in order to allow testers adequate space to affix clamps to secure the target coupon to the test fixture. The Contractor shall provide torque specification for these bolts with the coupon delivery, in order to allow the testers to disassemble and reassemble the coupons.

C.18.2.1.2.1 Opaque Armor - Metallic Armor Solutions
For opaque armor solutions which contain only metallic layers, the Contractor shall deliver coupons which are 610mm by 610mm in size, with a +/- 5mm tolerance on each linear dimension.

C.18.2.1.2.2 Opaque Armor - Ceramic/Composite Armor Solutions
The Contractor shall deliver coupons for recipes containing ceramic and composite materials in the following sizes, with tolerances of +/- 5mm for each linear dimension:

(a) For armor solution which contain ceramics but no composite layers, the coupons shall be 610mm by 610mm in size.
(b) For armor solutions that have a composite backing, the composite backing shall be 610mm by 610mm in size, and centered on a 762mm by 762mm coupon.
(c) For armor where multiple layers of composites are used, all composite layers which follow the last metallic element in the coupon shall be 610mm by 610mm and all elements prior to this shall be 762mm by 762mm in size.

C.18.2.1.3 Explosively Formed Penetrator (EFP) Coupons
If the Contractor proposes a non-Government provided EFP protection kit solution, the Contractor shall provide EFP protection kit solutions in the quantities indicated in Section F.2.2.5 The EFP protection kit solutions shall be mounted on a large enough sample of the B-kit door in order to facilitate coupon testing. Each EFP protection kit coupon shall be no smaller than 460mm by 460mm in size. All required mounting hardware shall be provided by the Contractor. EFP coupons do not need to be assembled and bolted together, but they shall be delivered with the armor layers in the proper order (e.g. taped, bonded). If the coupons are bolted, the Government testers reserve the right to remove the bolts prior to testing (otherwise, twisted/bent bolts may make it difficult to disassemble targets after shots to assess damage).

C.18.2.2 Ballistic Armor Structures
The Contractor shall provide the ballistic armor structures in the quantities indicated in Section F.2.3 and described in the following paragraphs.

C.18.2.2.1 A-Structure Ballistic Cab
The ballistic cab in the A-structure armor level of protection shall be configured without the wheels, suspension, drivetrain, or any interior components unless they are designed to provide ballistic protection (e.g. spall protection partitions or curtains).

The Contractor shall also deliver a test stand which attaches to the cab and supports it so that the bottom is at the Contractor designed operational ride height but does not block access to the cab sides or underbody. The four legs of the test stand shall be located where the vehicle tires would normally be.

C.18.2.2.2 Armored Rolling Chassis
The armored rolling chassis' shall include all occupant seats and restraints, but shall not include any other interior components unless they are designed to provide ballistic protection (e.g. spall protection partitions or curtains). Each armored rolling chassis shall incorporate wheels, suspensions, and the necessary drivetrain components to allow the chassis to roll (e.g. pushed or pulled), and shall be configured to the Contractor designed operational ride height. Each structure shall also include any components below the cab (e.g. driveshaft, transfer case, transmission), that would be located under the crew compartment floor or otherwise within the footprint of the crew space. The armored rolling chassis shall be configured with GPKs as follows: MCTAGs on rolling chassis in B1-kit configuration, OPGK 2.0 and Turret Ring and Hatch on rolling chassis in B2-kit configuration (this MCTAGS, OGPK 2.0 and Turret Ring/Hatch are accounted for within the quantities to be provided to the contractor in Attachment 36.) This MCTAGS and OGPK 2.0 (along with Turret Ring and Hatch for corresponding OGPK 2.0) will be returned to the contractor to be installed onto the vehicles prior to vehicle acceptance IAW Attachment 37. The Contractor is not required to use fully functional components as long as the proper masses and materials are in the appropriate locations defined by the Contractor design. The Contractor shall add surrogate weights to each armored rolling chassis to represent the weight of the engine and other missing components, so that each deliverable has the correct system Gross Vehicle Weight (GVW) and Center of Gravity (CG) location. The Contractor shall not place any artificial weights on the floor of the cab.

C.18.3 Additional Test Assets

C.18.3.1 Harnesses for Power Management Testing
The Contractor shall deliver a power generation test harness with each delivered vehicle that allows the Government to connect load banks to all locations in the vehicle where power can be drawn from the 28VDC On-board Vehicle Power (OBVP) system (reference section C.17.6.1).

C.18.3.2 Additional Energy Storage Devices for Ballistics and Abuse Testing
If the Contractor's design integrates anything other than lead acid type energy storage devices for starting, lighting, and ignition (SLI) only, the Contractor shall deliver extra JLTV energy storage devices as specified in Section F.2.4.3, to support ballistic, destructive, and cold requirements testing.

C.18.3.3 NATO 400 Hour Test Engine Delivery
The Contractor shall deliver one JLTV engine as specified in Section F.2.4.1

The following items shall be included with the engine:

(a) One Engine Control Unit (ECU) and wiring set (If the engine uses an ECU); all wiring harnesses and labeled connections from the ECU to interface with the Government data acquisition and control system. All interface leads must be a minimum of 25 feet long.
(b) All filtration systems (Air, Oil, Fuel, Coolant (if applicable)).
(c) All maintenance items (belts, filters) required for 500 hours of operation excluding Petroleum, Oil, and Lubricant (POL).
(d) One water heat exchanger (if the engine uses an air-to-air charge air cooler).
(e) One exhaust outlet flange.
(f) Two spare exhaust manifold gaskets sets.
(g) One dyno engine vibration mounts.
(h) One engine flywheel with ring feeder and starter, dyno shaft and damping coupling.
(i) One Engine Test Support Package as specified in C.17.8.1.1.

C.19 TEST DEFICIENCIES/FAILURES
This section outlines the process and procedures to address test deficiencies and failures identified during Government testing (reference Section C.17.3).

19.1 VISION Digital Library System (VDLS) Utilization
The Contractor shall be responsible for accessing VDLS (https://vdls.atc.army.mil) for all Test Incident Reports (TIRs) released during Government-required testing (reference CDRL Data Item A087 FACAR). The Contractor shall access Secret VDLS for the handling of classified TIRs. Receipt of a TIR is defined as the TIR Release Date.

C.19.2 Failure Analysis & Corrective Actions
The Contractor shall implement a closed-loop failure reporting system (Failure Reporting, Analysis, and Corrective Action System (FRACAS)) to track test deficiencies identified during Government testing. The Contractor shall adhere to Configuration Management

Section C.11 for any changes to vehicle configuration as a result of any corrective actions. Corrective actions taken by the Contractor are at the Contractors discretion and the Contractor should consider, prior to implementation, the impact the corrective action may have on prior testing.

The Contractor shall provide Failure Analysis and Corrective Action reports (FACARs) in response to all Critical and Major TIRs. The Contractor shall provide FACARs to Minor and Informational TIRs at the request of the Government. FACARs are not required for TIRs that are generated as a result of the following: crew, personnel, or Government Furnished Equipment (GFE - hardware and software) not attributed to the vehicle.

The Contractor shall analyze and classify each FACAR with one of the failure mode identification codes (A, BC, BD) defined in FDSC (Attachment 38). The Contractor shall conduct root cause analysis and corrective action for all FACARs classified as BC and BD. The Contractor shall utilize root cause analysis technical tools that are appropriate to the issue (e.g. utilize finite element analysis for a structural failure), such as:

(a) Material Analysis
(b) Finite Element Analysis (FEA)
(c) Physics of Failure (PoF)
(d) Dynamic and Static design modeling and simulation
(e) Environmental Stress Screening (ESS)
(f) Thermal and Vibration Analysis
(g) Regression Testing

The Contractor shall analyze and assign a Fix Effectiveness Factor (FEF) to each BC and BD classified FACAR to assess the redesign impact. The FEF analysis shall include a comparison of the allocated reliability value to the predicted reliability value and to the demonstrated reliability value. The FACAR shall address root cause determination, corrective action development and implementation, process control improvements, and test results. The FACAR shall also include schedule of repair, time to repair, and availability of parts.

For all Critical and Major TIRs, FACARs shall include subsystem testing as substantiating evidence.

For all corrective actions that include any software modification(s), regression testing shall be used to ensure that no functional impacts have occurred beyond those that were intended to be addressed by the software modification. The results of the regression testing shall be included in the FACAR. Similarly, during the course of conducting root cause analysis on test deficiencies, the investigation shall explore the possibility of the incident having occurred as an unwanted result of a previously-implemented software modification.

For corrective actions that involve non-software modifications, the concepts of regression testing shall also be applied. That is, testing shall be conducted to verify that the corrective action did not have any functional impact beyond those intended.

All FACARs shall include a functional block diagram.

The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A087)

C.19.3 TIR Response Time
The Contractor shall respond to TIRs that require a FACAR within the following time frames below.

C.19.3.1 Critical TIR
The Contractor shall provide an update via telephone to the Government PMO within 24 hours of Government notification of a Critical TIR. The Initial FACAR shall be submitted within three calendar days of TIR release date or TIR revision date if revision impacts TIR incident classification. Final FACAR submitted within seven calendar days of TIR Release Date, unless an extension is requested by the Contractor in writing, and approved by the Government.

C.19.3.2 Major TIR
For Major TIRs, the Contractor shall submit the initial FACAR to the Government within seven calendar days of TIR release date or TIR revision date if revision impacts TIR incident classification. The Contractor shall submit the final FACAR within 14 calendar days of TIR release date, unless an extension is requested by the Contractor in writing, and approved by the Government.

C.19.3.3 Minor/Informational TIRs
If requested by the Government, the Contractor shall submit a FACAR within 24 calendar days of date of request.

C.19.4 RESERVED

C.19.5 Identification of Failed Parts
The Contractor shall mark, tag, and control each failed part with the contractors part number, and its respective Test Incident Report

(TIR) number.

The Contractor shall ensure that all identification markings and tagging placed on a failed test exhibit are legible.

The Contractor shall handle each failed parts supporting the Failure Analysis and Corrective Action Report (FACAR) in a manner that does not damage the failed test exhibit.

The Contractor shall be fully responsible for the storage of each failed parts (no matter where the storage facility is located) and the item(s) shall remain stored pending disposition of the failure analysis and Government notification and approval.

19.6 Scoring Conferences, Assessment Conferences, & CART Meetings

C.19.6.1 Scoring Conferences
The Contractor shall support monthly Government Scoring Conference meetings by presenting information, evidence, or opinions that the Government will consider when scoring test incidents. Each Scoring Conference is anticipated to be two days in duration. The Contractor shall document information, evidence, or opinions and present to Government. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.19.6.2 Assessment Conferences
The Contractor shall support all Government Assessment Conferences, which will occur during Government testing. The Government will provide Contractor notification of the Assessment Conference at least 10 business days prior to the event. For planning purposes, it is expected that three Assessment Conferences will be held, for duration of two days each. Prior to each Assessment Conference, the Contractor shall prepare and provide an Assessment Conference Package. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A089)

C.19.6.3 Corrective Action Review Team (CART) Meetings
The Contractor shall support the Corrective Action Review Team (CART) which is the Government group responsible for reviewing the Contractor's FACARs, including root cause analysis and proposed fixes. The CART may provide feedback to the Contractor regarding their root cause analysis methodology. The Contractor has final decision on design changes implemented on test vehicles. Any design modifications that are implemented, must be implemented across all JLTV test assets, unless specifically waived by the Government. The JLTV PMO will chair the CART meetings. The CART meetings will be weekly, one day events. The JLTV PMO will provide official notification on all CART Meeting schedules at the inception of each test project. The Contractor's corrective action team membership shall directly correlate with the Government CART members, as applicable, to reflect all relevant CART functions (e.g. Quality, RAM, Logistics, Maintenance, Systems Engineering, Safety, Transportability and MANPRINT/Human Factors.)

C.19.6.4 CART Meeting Agenda and Minutes Preparation
CART meeting agendas will be established by the Government. Meeting agendas will include a list of all TIRs numbers to be discussed by category. The Contractor shall provide official CART meeting minutes (reference C.3.1.2, CDRL Data Item A002).

C.20 Reserved

C.21 FACILITY VEHICLE
The Contractor shall maintain one JLTV-GP vehicle (IAW with Attachment 37) as GFE, which shall be subject to FAR 52.245-1. Following Government acceptance of this vehicle, the vehicle will initially undergo Contractor Performed Government Testing (reference Section C.17). Following Contractor Performed Government Testing, this vehicle will be under the Contractor's control and serve the following functions:

(a) Validation of proposed vehicle modifications (including Engineering Changes), and corrective actions. This vehicle shall include GFE (reference Section C.16).

(b) When not being used for validation of Engineering Changes, this vehicle shall serve as the configuration baseline for JLTV platform (reference Section C.11). This vehicle shall contain the latest engineering changes and will function as the master baseline for vehicle configuration.

(c) The Facility Vehicle shall be maintained throughout the contract period of performance, according to Contractors maintenance procedures that are in place for all EMD test vehicles. The Contractor shall prepare and maintain a vehicle log that stays with the vehicle at all times, is made available to Government for review as requested, is included with vehicle delivery to the Government, and contains the following information:

(i) All regular scheduled maintenance in accordance with the OEMs maintenance schedule (hours and miles)
(ii) All unscheduled service
(iii) Date, hours, and all mileage (beginning and end of each event) of all vehicle operation (static and dynamic)
(iv) Name or initials of operator or maintainer
(v) Type of use (parts removed/changed, configuration revision, general maintenance, etc.)

The Government reserves the right to utilize the Facility Vehicle as a test asset. The Contractor shall be responsible for preparing the vehicle for shipment to the Government.

C.22 MANUFACTURING AND PRODUCTION READINESS

C.22.1 Manufacturing Development Strategy
The Contractor shall create and utilize a Manufacturing Development Strategy. The strategy shall include: manufacturing processes and procedures used under this contract, changes to the manufacturing processes and procedures required to conduct Low Rate Initial Production (LRIP), and changes to the manufacturing processes and procedures required to conduct Full Rate Production (FRP). The Strategy shall include what evidence the contractor intends to provide to show the path to Manufacturing Readiness Level (MRL) 8 at PRR and MRL 9 following LRIP. The Contractor shall utilize the criteria and processes defined in MIL-HDBK-896 Manufacturing and Quality Program and DoD MRL Deskbook (latest editions) as guides for this effort, including definitions and measurement of MRLs.

The information used to develop this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A093)

C.22.2 Design for Manufacturability (DFM)
The Contractor shall perform assessments of DFM that include Digital Mockup Assembly (DMA) reviews, feasibility studies, and predicted assembly times for the Key Subsystems (per Attachment 9). The Contractor shall show how the JLTV has been designed for full rate production manufacturability per the Manufacturing Development Strategy (reference CDRL Data Item A093) by using methods to simulate full rate production manufacturing processes (e.g. DMA methods, including clearances and tolerances for tooling, personnel, and part installation).

This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.22.3 Manufacturing Environment
The Contractor shall manufacture the JLTV for this contract in an environment that is as representative of a production process as is practical, including tooling, facilities, documentation, and personnel. The Contractor shall monitor MRLs and provide status to the Government at all program reviews IAW the IMP for in-house and supplier MRLs, and shall re-assess MRLs in areas for which design, process, source of supply, or facility location changes have occurred that could impact the manufacturing readiness.

C.22.4 Process Failure Modes and Effects Analysis (PFMEA)
The Contractor and their suppliers shall use the Automotive Industry Action Group (AIAG) FMEA manual (latest edition) as a guide to create all PFMEAs. The PFMEA's shall be traceable to process changes and shall be included in the configuration management change process. This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

The Contractor shall provide all Key Subsystem (reference Attachment 9) PFMEA's necessary to build the JLTV. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A095).

C.22.5 Control Plans
The Contractor shall develop and implement Control Plans for each manufacturing process IAW latest AIAG Advanced Product Quality Planning and Control Plan (APQP) format and content. The Contractor shall document any temporary or interim off-standard operation (those that will not be used in LRIP). The Contractor shall maintain and update the Control Plan to reflect all changes to the manufacturing process through the execution of this contract.

This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.22.6 Manufacturing Consistency
The Contractor shall ensure that parts are manufactured in a consistent and repeatable manner, by using calibrated gages and Measurement System Analyses (MSA) where appropriate. The Contractor shall use the AIAG MSA manual and the requirements of TS-16949, 7.6.1, and 7.6.2 as guides for Gage Repeatability & Reproducibility (R&R). This information shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.23 QUALITY ASSURANCE

C.23.1 Quality Management System
The Contractor shall develop, implement, and maintain a Quality Management System (QMS) for all supplies and services to be provided under this contract. The quality system shall, as a minimum, be third party certified to ISO 9001:2008. ISO/TS 16949:2009 compliance is required for the ISO/TS 16949:2009 clauses specifically identified in the Scope of Work section C.5.16 and C.22.6. The Contractors Quality System requirements shall apply at engineering design, vehicle in-process and final assembly locations. The quality system shall address all software and hardware contractual requirements. The quality system and manual shall follow the guidelines within ISO 9004:2009 (reference CDRL A093).

C.23.2 Software Quality Assurance Plan
The Contactor shall develop and deliver a JLTV Software Quality Assurance Plan. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A099).

C.23.3 Supplier Quality Assurance Program
The Contractor shall develop and maintain a Supplier Quality Assurance (SQA) program that will be used to guide all Contractor supplier interaction. The Contractors supplier quality assurance program shall be compliant with ISO/TS 16949:2009 and shall ensure that each supplier has a documented quality program that directs all quality activities, and includes the process for regular monitoring of supplier quality and delivery performance. The Contractor's SQA program shall address, at a minimum, the items indicated in CDRL Data Item A100. The Contractor shall deliver a Supplier Quality Assurance Plan, including provisions for periodic audits. An existing Supplier Quality Assurance manual, that addresses all requirements of Section C.23.3 and this CDRL, is acceptable. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A100).

C.23.4 GOVERNMENT QUALITY AUDITS
The Government will monitor the contractor's performance using QA procedures established for the contract in Section C.23). This may involve quality audits (process audits, manufacturing audits, product audits) as required. The Contractor shall support the Government in performance of such audits (e.g. provision of required documentation, product, personnel, or other resources to conduct the audits). Government audits of sub-suppliers, if required, will be conducted with the prime Contractor.

C.23.4.1 Manufacturing Process Audits
Manufacturing Process Audits manufacturing process audits will consist of review of Contractor manufacturing processes, including process layout, documentation, material and information flow, tooling, and any other aspects of the process that may affect quality of the finished product.

C.23.4.2 Quality Management System Audits
Quality Management System (QMS) Audits QMS audits will consist of review of Contractor processes as contained in the Contractors QMS system, including those items outlined in CDRL A093, and CDRL A100. Such audits may involve accompanying the Contractor to a sub-supplier location to conduct audit activities.

C.24 SECURITY

C.24.1 Requirements
The Contractor shall comply with the security requirements imparted by the DD Form 254 (Attachment 44), NIST Special Publication 800-53 and DODI 8500.2, the National Industrial Security Program Operating Manual (NISPOM) and AR 25-2.
http://www.dss.mil/isp/fac_clear/download_nispom.html.

C.24.1.1 Information Assurance Program Management
The Contractor shall maintain an Information Assurance (IA) program that provides sufficient safeguards to ensure that all sensitive information, technical controlled unclassified information (CUI) or Critical Program Information (CPI) in the possession of the contractor is protected from unauthorized access and release. The Contractor's IA program must be robust enough to protect information using the DoDI 8500.2 confidentiality Level IA controls for sensitive information and ensure access to Army information is based on need-to-know. This information, including the Contractors Information Assurance program plans, shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP.

C.24.2 Program Protection Implementation Plan (PPIP)
The Contractor shall develop, implement, maintain, and provide a Program Protection Implementation Plan (PPIP) that is compliant with the security requirements imparted by the DD Form 254 (Attachment 44) and the NISPOM. The PPIP shall include demonstration of visibility into supply chain and Software Assurance for critical components. The Government Program Protection Plan will be provided at the SOWM. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A096).

C.24.2.1 Program Protection Working Group (PPWG)/Critical Program Information Assessment (CPIA)
The Contractor shall host a Program Protection Working Group (PPWG) within six months after award and a second PPWG within 12 months after award. Each PPWG will be chaired by the Government security manager and co-chaired by the Contractor security manager. The co-chair shall develop the agenda. The agenda shall include a CPIA that will identify Critical Program Information or Critical Technology (defined by DoDI 5200.39, July 16, 2008 Incl Change 1 Dec 28, 2010, Critical Program Information (CPI) Protection within the Department of Defense). Each PPWG will be a one day event. After the event, the Government will provide a PCO letter validating the CPI/CT for the program.

C.24.2.2 Anti-Tamper (AT) Planning
If the PPWG identifies Critical Program Information or Critical Technology, the Contractor shall design, develop and integrate an Anti-Tamper (AT) solution for hardware and software containing Critical Program Information and Critical Technology to deter, prevent, and detect the reverse engineering of those systems using the probability of an unplanned loss and/or for international sales across the program's lifecycle. The Contractor shall take the AT solutions through verification and testing to include any prototypes. The Contractor shall utilize reverse engineering countermeasures that are commensurate with the exposure levels and consequence of critical program information loss using the analysis process identified in the DoD Anti-Tamper (AT) Guidelines. The Contractor shall deliver the detailed Anti-Tamper solution as an Anti-Tamper Plan Annex to the PPIP (ref. CDRL Data Item A096) and shall incorporate the solution into the JLTV design.

C.25 OPTION - ADDITIONAL LEVEL OF EFFORT

C.25.1 Work Directive
All work under this CLIN shall be performed in accordance with work directives issued by the Contracting Officer (CO). No work shall commence until the Contractor has received a fully executed work directive. The Contractor shall provide all necessary labor, materials, supplies, services, facilities, and equipment to perform the specific work and services required by individual work directives. Each work directive shall include the following information as a minimum:

- Work directive number and title
- Reference to the applicable paragraph in section C
- Objective of this work directive
- Maximum number of hours authorized
- Detailed description of work to be performed
- Required completion date(s)
- Identification of applicable contract number, Contractor's name and address
- Identification of software, data, and/or hardware to be delivered
- Fixed Price (No Profit) for Other Direct Costs (ODC) (Material, Transportation, etc)
- Contracting Officers signature

The Contractor shall notify the Contracting Officer's Representative (COR) immediately by telephone or E-mail if delivery dates will not be met. The Contractor shall follow up with a letter to the Contracting Officer (CO) and the COR. Services specified in individual work directives shall include effort in the following category:

a) Emergency Repair to a Test Asset: Repair and/or refurbishment of a vehicle or trailer damaged as result of an accident or a non-test incident. This effort is not to be utilized for repairs or vehicle improvements covered under FACARs or TIR process that result from normal testing or any other repair specified within base contract of statement of work.

C.25.1.1 Funds and Man-Hours Expenditure Report
The Contractor shall deliver a Funds and Man-Power Report. This report shall provide data for each Work Directive. The information used to create this CDRL shall be available to the Government and discussed at IPT meetings as well as major reviews IAW the Government provided IMP. (CDRL Data Item A013)

*** END OF NARRATIVE C0001 ***

	Regulatory Cite	Title	Date
C-1	52.237-4000 (TACOM)	CONTRACTOR MANPOWER REPORTING (CMR)	FEB/2007

The Office of the Assistant Secretary of the Army (Manpower & Reserve Affairs) operates and maintains a secure Army data collection site where the contractor will report ALL contractor manpower (including subcontractor manpower) required for performance of this

contract. The contractor is required to completely fill in all the information in the format using the following web address: https://cmra.army.mil . The required information includes the following:

(1) Contracting Office, Contracting Officer, Contracting Officer's Technical Representative;

(2) Contract number, including task and delivery order number;

(3) Beginning and ending dates covered by reporting period;

(4) Contractor name, address, phone number, e-mail address, identity of contractor employee entering data;

(5) Estimated direct labor hours (including sub-contractors);

(6) Estimated direct labor dollars paid this reporting period (including sub-contractors);

(7) Total payments (including sub-contractors);

(8) Predominant Federal Service Code (FSC) reflecting services provided by contractor (and separate predominant FSC for each sub-contractor if different);

(9) Estimated data collection cost;

(10) Organizational title associated with the Unit Identification Code (UIC) for the Army Requiring Activity (the Army Requiring Activity is responsible for providing the contractor with its UIC for the purposes of reporting this information);

(11) Locations where contractor and sub-contractors perform the work (specified by zip code in the United States and nearest city, country, when in an overseas location, using standardized nomenclature provided on website);

(12) Presence of deployment or contingency contract language; and

(13) Number of contractor and sub-contractor employees deployed in theater this reporting period (by country).

As part of its submission, the contractor will also provide the estimated total cost (if any) incurred to comply with this reporting requirement. Reporting period will be the period of performance not to exceed 12 months ending September 30 of each government fiscal year and must be reported by 31 October of each calendar year.

[End of Clause]

SECTION D - PACKAGING AND MARKING

D.1 Packaging and Packing:
All items deliverable under this contract shall be packaged and packed in accordance with standard commercial practice in order to assure arrival at Destination without damage or loss. Armor related "B" kit components (Transparent glass, doors etc) shall be containerized and packaged in such a way as to allow easy removal and replacement in the original container without damage or degradation to any of the Armor components.

D.2 Marking:
All technical data deliverable under this contract shall be identified by the prime contractor, the name and address of the prime contractor, and where applicable, the name and address of the subcontractor who generated the data.

D.3 DODAAC:
The Contractor shall apply for a DODAAC code with the Contracting Officer prior to Government Furnished Equipment (GFE) shipment.

*** END OF NARRATIVE D0001 ***

SECTION E - INSPECTION AND ACCEPTANCE

E.1 INSPECTION and ACCEPTANCE

E.1.1 Vehicle, Trailer, and Furnished Kits Acceptance Criteria (CLINs 0001-0003, 0005, and CLIN 0009)
The activities indicated in E.1.1.1 through E.1.1.3 shall be successfully completed prior to Government acceptance of all JLTV Vehicles and Trailers (DD250).

The Government will not furnish any inspection and test equipment for vehicle inspection and acceptance activities. It is solely the Contractors responsibility to supply and maintain all inspection and test equipment and assure the end item components conform to contract requirements.

E.1.1.1 Break-In Testing
All Break-In Testing required in Section C.17.1.1 shall be successfully completed prior to execution of FIR (E.1.1.2).

E.1.1.2 Final Inspection Record (FIR)
The Contractor shall prepare a Final Inspection Record (FIR) (CDRL Data Item A097) in Contractor format for all JLTV deliverable vehicles and trailers, as specified in Attachment 37.

The Contractor shall provide 14 day advance notice and an invitation to the Government PMO to witness Final Inspection Record (FIR) activities. The Contractor shall confirm the event schedule three business days prior to event.

The FIR shall list each characteristic or function inspected or tested, and shall contain all examinations, tests and assembly processes (including rework/replacement) performed on each vehicle during assembly and Contractor's acceptance inspections. All discrepancies found during, and identified in the FIR shall be corrected on the vehicles and trailers prior to Government acceptance.

The FIR shall include confirmation of safe vehicle and trailer operation and basic integration and operation of CFE/GFE indicated in Attachment 37 (i.e. equipment receives power, turns on (if applicable), is installed in correct location, etc.) The FIR shall be organized to be compatible with assemblies, installation, and end item performance and acceptance.

E.1.1.3 Pre-Test Readiness Review (TRR) Checklist
The Pre-TRR Checklist (Attachment 13) shall be successfully completed prior to vehicle and trailer delivery.

E.1.2 Non-Vehicle Hardware Acceptance Criteria (CLIN 0004, 0006-0008, and 0010-0012)
The Contractor shall review all non-vehicle test assets to ensure conformance to requirements outlined in Section C.18, C.18.2-C.18.3.3, and quantities identified in Section F, prior to Government Acceptance (DD250) activity.

E.1.3 Engineering Manufacturing Development (EMD) Supplies and Services (CLIN 0013)
The final PMR exit criteria as described in Section C.3.5.1 and the IMP shall be successfully completed prior to Government acceptance of CLIN 0013.

*** END OF NARRATIVE E0001 ***

	Regulatory Cite	Title	Date
E-1	52.246-7	INSPECTION OF RESEARCH AND DEVELOPMENT--FIXED PRICE	AUG/1996
E-2	52.246-16	RESPONSIBILITY FOR SUPPLIES	APR/1984
E-3	52.246-11	HIGHER-LEVEL CONTRACT QUALITY REQUIREMENT	FEB/1999

The Contractor shall comply with the higher-level quality standard selected below. [If more than one standard is listed, the offeror shall indicate its selection by checking the appropriate block.]

Title	Number	Date	Tailoring
ISO	9001	2008	

The contract call is: ISO 9001:2008 AND ISO/TS 16949:2009

In addition to the ISO 9001:2008 certification requirement, the Contractor shall comply with the following ISO/TS 16949:2009 clauses: 7.6.1, 7.6.2, 7.3.2.3, 7.4.1.2.

(End of Clause)

E-4	52.246-4028	INSPECTION AND ACCEPTANCE POINTS: ORIGIN	NOV/2005

(TACOM)

The Government's inspection and acceptance of the supplies offered under this contract/purchase order shall take place at ORIGIN. Offeror must specify below the exact name, address, and CAGE of the facility where supplies to be furnished under this contract/purchase order will be available for inspection/acceptance.

INSPECTION POINT: Oshkosh Corporation 45152
(Name) (CAGE)

2307 Oregon Street Oshkosh, Wisconsin 54902
(Address) (City) (State) (Zip)

ACCEPTANCE POINT: Oshkosh Corporation 45152
(Name) (CAGE)

2307 Oregon Street Oshkosh, Wisconsin 54902
(Address) (City) (State) (Zip)

[End of Clause]

SECTION F - DELIVERIES OR PERFORMANCE

F.1 Period of Performance

F.1.1 All effort required under this contract shall be completed within 27 months after contract award.

F.2 Delivery of Test Assets to Primary Test Site(s)

All Test Asset CLINS are FOB Destination.

F.2.1 CLINS 0001, 0002, 0003, 0005, and 0009. The JLTV vehicles and trailers shall be painted tan and delivered to the designated test sites in the quantities and configuration shown in the EMD Vehicle Configuration and Allocation Matrix (Attachment 37) no later than 365 days after contract award date. However, it is acceptable to deliver vehicle GP1 (identified in Attachment 37) up to 425 days after contract award date, and vehicle HGC2 (identified in Attachment 37) may be delivered up to 395 days after contract award date. Controlled Cryptographic Items (CCI) shall be shipped via COMSEC account. Items that are susceptible to damage during shipping (including antennas, CROWS, and any other items of concern for potential shipping damage) shall be securely packaged separately and shipped with the vehicle.

F.2.1.1 The Facility Vehicles required in Section C.21 shall remain at Contractor location for the test period indicated in the EMD Vehicle Configuration and Allocation Matrix (Attachment 37). At the conclusion of this test period, it will be sent to Limited User Test (LUT) site to support LUT activities, unless otherwise directed by the Government.

F.2.1.2 The Contractor shall deliver all vehicles in accordance with the Contractor Furnished Equipment and Government Furnished Equipment configurations detailed in Attachment 37, EMD Vehicle Configuration and Allocation Matrix.

F.2.2 CLIN 0010. The Contractor shall provide the Government one armor coupon set for each transparent and opaque armor recipe required to satisfy the protection levels defined in the JLTV Purchase Description Annex E (Attachment 1). The contractor shall deliver opaque armor coupon sets to Aberdeen Proving Grounds (APG) and transparent armor coupons to Tank Automotive Research Engineering and Development Center (TARDEC) within 60 days of contract award. Coupon sets shall be as follows:

F.2.2.1 Transparent Armor - One armor coupon set of each TA unique solution shall consist of 40 coupons if B-kit level protection, 36 coupons if A-structure level protection.

F.2.2.2 Opaque Armor (OA) - Metallic Armor Solutions: for armor solutions that contain only metallic layers, which are designed to provide B-kit level protection, one armor coupon set of each OA unique solution shall consist of 20 coupons. Additionally, for armor solutions which contain only metallic layers, and are designed to provide A-structure level protection, one coupon set of each OA unique solution shall consist of 15 coupons.

F.2.2.3 Opaque Armor - Ceramic/Composite Armor Solutions: For armor solutions which contain ceramic and/or composite layers, which are designed to provide B-kit level protection, one armor coupon set of each OA unique solution shall consist of 28 coupons.

F.2.2.4 Opaque Armor - Ceramic/Composite Armor Solutions - For armor solutions which contain ceramic and/or composite layers, which are designed to provide A-structure level protection, one coupon set of each OA unique solution shall consist of 19 coupons.

F.2.2.5 Explosively Formed Penetrator (EFP) Coupons - The Contractor may propose a non-Government provided EFP protection kit solution. If so, the Contractor shall deliver one set of each EFP protection kit solution. One set shall consist of 10 coupons. Each EFP protection kit coupon shall be no smaller than 460mm by 460mm in size. The Contractor shall deliver EFP coupon sets to APG within 60 days of contract award.

F.2.3 CLINS 0006, 0007, 0008, and 0005. The Contractor shall deliver three ballistic armor structures to APG for the JLTV-GP as follows:

F.2.3.1 CLIN 0006. One Ballistic cab, in accordance with Section C.18.2.2.1, in the A-structure armor level of protection, with a supporting test stand. Contractor shall deliver the ballistic cab no later than 150 days after contract award.

F.2.3.2 CLIN 0007. One Armored rolling chassis, in accordance with Section C.18.2.2.2, in the B1-kit armor level of protection. The Contractor shall deliver this armored rolling chassis no later than 150 days after contract award.

F.2.3.3 CLIN 0008. One Armored rolling chassis, in accordance with Section C.18.2.2.2, in the B2-kit armor level of protection. The Contractor shall deliver this armored rolling chassis no later than 150 days after contract award.

F.2.4 Other Test Asset Deliverables

F.2.4.1 CLIN 0011. The Contractor shall deliver a JLTV engine (for 400 hour NATO Engine Testing) to Tank Automotive Research

Development and Engineering Center (TARDEC), with supporting equipment IAW Section C.18.3.3, no later than five months after contract award.

F.2.4.2 CLIN 0004. The Contractor shall deliver a power generation test harness with each test vehicle, IAW paragraph C.18.3.1 of SOW

F.2.4.3 CLIN 0012. If the Contractor's design integrates anything other than lead acid type energy storage devices for starting, lighting, and ignition (SLI) only, the contractor shall deliver 23 JLTV batteries to APG no later than 5 months after contract award.

F.3 Data Deliverables
F.3.1 Delivery of data set forth in the contract shall be in accordance with the Exhibit A - Contract Data Requirements List, DD Form 1423

F. 4 Place of Performance

Oshkosh Corporation
- Oshkosh, WI

*** END OF NARRATIVE F0001 ***

	Regulatory Cite	Title	Date
F-1	52.242-15	STOP-WORK ORDER	AUG/1989
F-2	52.242-17	GOVERNMENT DELAY OF WORK	APR/1984
F-3	52.247-34	F.O.B. DESTINATION	NOV/1991
F-4	52.247-48	F.O.B. DESTINATION--EVIDENCE OF SHIPMENT	FEB/1999
F-5	52.247-55	F.O.B. POINT FOR DELIVERY OF GOVERNMENT-FURNISHED PROPERTY	JUN/2003
F-6	252.211-7007	REPORTING OF GOVERNMENT-FURNISHED EQUIPMENT IN THE DOD ITEM UNIQUE IDENTIFICATION (IUID) REGISTRY	NOV/2008
F-7	252.211-7008	USE OF GOVERNMENT-ASSIGNED SERIAL NUMBERS	SEP/2010
F-8	252.211-7003	ITEM IDENTIFICATION AND VALUATION	JUN/2011

(a) Definitions. As used in this clause

"Automatic identification device" means a device, such as a reader or interrogator, used to retrieve data encoded on machine-readable media.

"Concatenated unique item identifier" means

(1) For items that are serialized within the enterprise identifier, the linking together of the unique identifier data elements in order of the issuing agency code, enterprise identifier, and unique serial number within the enterprise identifier; or

(2) For items that are serialized within the original part, lot, or batch number, the linking together of the unique identifier data elements in order of the issuing agency code; enterprise identifier; original part, lot, or batch number; and serial number within the original part, lot, or batch number.

"Data qualifier" means a specified character (or string of characters) that immediately precedes a data field that defines the general category or intended use of the data that follows.

"DoD recognized unique identification equivalent" means a unique identification method that is in commercial use and has been recognized by DoD. All DoD recognized unique identification equivalents are listed at http://www.acq.osd.mil/dpap/pdi/uid/iuid_equivalents.html.

"DoD unique item identification" means a system of marking items delivered to DoD with unique item identifiers that have machine-readable data elements to distinguish an item from all other like and unlike items. For items that are serialized within the enterprise identifier, the unique item identifier shall include the data elements of the enterprise identifier and a unique serial number. For items that are serialized within the part, lot, or batch number within the enterprise identifier, the unique item identifier shall include the data elements of the enterprise identifier; the original part, lot, or batch number; and the serial number.

"Enterprise" means the entity (e.g., a manufacturer or vendor) responsible for assigning unique item identifiers to items.

"Enterprise identifier" means a code that is uniquely assigned to an enterprise by an issuing agency.

"Governments unit acquisition cost" means

(1) For fixed-price type line, subline, or exhibit line items, the unit price identified in the contract at the time of delivery;

(2) For cost-type or undefinitized line, subline, or exhibit line items, the Contractors estimated fully burdened unit cost to the Government at the time of delivery; and

(3) For items produced under a time-and-materials contract, the Contractors estimated fully burdened unit cost to the Government at the time of delivery.

"Issuing agency" means an organization responsible for assigning a globally unique identifier to an enterprise (e.g., Dun & Bradstreet's Data Universal Numbering System (DUNS) Number, GS1 Company Prefix, Allied Committee 135 NATO Commercial and Government Entity (NCAGE)/Commercial and Government Entity (CAGE) Code, or the Coded Representation of the North American Telecommunications Industry Manufacturers, Suppliers, and Related Service Companies (ATIS-0322000) Number), European Health Industry Business Communication Council (EHIBCC) and Health Industry Business Communication Council (HIBCC)), as indicated in the Register of Issuing Agency Codes for ISO/IEC 15459, located at http://www.nen.nl/web/Normen-ontwikkelen/ISOIEC-15459-Issuing-Agency-Codes.htm.

"Issuing agency code" means a code that designates the registration (or controlling) authority for the enterprise identifier.

"Item" means a single hardware article or a single unit formed by a grouping of subassemblies, components, or constituent parts.

"Lot or batch number" means an identifying number assigned by the enterprise to a designated group of items, usually referred to as either a lot or a batch, all of which were manufactured under identical conditions.

"Machine-readable" means an automatic identification technology media, such as bar codes, contact memory buttons, radio frequency identification, or optical memory cards.

"Original part number" means a combination of numbers or letters assigned by the enterprise at item creation to a class of items with the same form, fit, function, and interface.

"Parent item" means the item assembly, intermediate component, or subassembly that has an embedded item with a unique item identifier or DoD recognized unique identification equivalent.

"Serial number within the enterprise identifier" means a combination of numbers, letters, or symbols assigned by the enterprise to an item that provides for the differentiation of that item from any other like and unlike item and is never used again within the enterprise.

"Serial number within the part, lot, or batch number" means a combination of numbers or letters assigned by the enterprise to an item that provides for the differentiation of that item from any other like item within a part, lot, or batch number assignment.

"Serialization within the enterprise identifier" means each item produced is assigned a serial number that is unique among all the tangible items produced by the enterprise and is never used again. The enterprise is responsible for ensuring unique serialization within the enterprise identifier.

"Serialization within the part, lot, or batch number" means each item of a particular part, lot, or batch number is assigned a unique serial number within that part, lot, or batch number assignment. The enterprise is responsible for ensuring unique serialization within the part, lot, or batch number within the enterprise identifier.

"Unique item identifier" means a set of data elements marked on items that is globally unique and unambiguous. The term includes a concatenated unique item identifier or a DoD recognized unique identification equivalent.

"Unique item identifier type" means a designator to indicate which method of uniquely identifying a part has been used. The current list of accepted unique item identifier types is maintained at http://www.acq.osd.mil/dpap/pdi/uid/uii_types.html.

(b) The Contractor shall deliver all items under a contract line, subline, or exhibit line item.

(c) Unique item identifier.

(1) The Contractor shall provide a unique item identifier for the following:

(i) All delivered items for which the Governments unit acquisition cost is $5,000 or more.

(ii) The following items for which the Governments unit acquisition cost is less than $5,000:

Contract Line,

Subline, or Exhibit Line Item Number	Item Description
N/A	N/A
N/A	N/A
N/A	N/A

(iii) Subassemblies, components, and parts embedded within delivered items as specified: Refer to Statement of Work, Section C.15.7.

(2) The unique item identifier and the component data elements of the DoD unique item identification shall not change over the life of the item.

(3) Data syntax and semantics of unique item identifiers. The Contractor shall ensure that

(i) The encoded data elements (except issuing agency code) of the unique item identifier are marked on the item using one of the following three types of data qualifiers, as determined by the Contractor:

(A) Application Identifiers (AIs) (Format Indicator 05 of ISO/IEC International Standard 15434), in accordance with ISO/IEC International Standard 15418, Information Technology EAN/UCC Application Identifiers and Fact Data Identifiers and Maintenance and ANSI MH 10.8.2 Data Identifier and Application Identifier Standard.

(B) Data Identifiers (DIs) (Format Indicator 06 of ISO/IEC International Standard 15434), in accordance with ISO/IEC International Standard 15418, Information Technology EAN/UCC Application Identifiers and Fact Data Identifiers and Maintenance and ANSI MH 10.8.2 Data Identifier and Application Identifier Standard.

(C) Text Element Identifiers (TEIs) (Format Indicator 12 of ISO/IEC International Standard 15434), in accordance with the Air Transport Association Common Support Data Dictionary; and

(ii) The encoded data elements of the unique item identifier conform to the transfer structure, syntax, and coding of messages and data formats specified for Format Indicators 05, 06, and 12 in ISO/IEC International Standard 15434, Information Technology Transfer Syntax for High Capacity Automatic Data Capture Media.

(4) Unique item identifier.

(i) The Contractor shall

(A) Determine whether to

(1) Serialize within the enterprise identifier;

(2) Serialize within the part, lot, or batch number; or

(3) Use a DoD recognized unique identification equivalent; and

(B) Place the data elements of the unique item identifier (enterprise identifier; serial number; DoD recognized unique identification equivalent; and for serialization within the part, lot, or batch number only: original part, lot, or batch number) on items requiring marking by paragraph (c)(1) of this clause, based on the criteria provided in the version of MIL-STD-130, Identification Marking of U.S. Military Property, cited in the contract Schedule.

(ii) The issuing agency code

(A) Shall not be placed on the item; and

(B) Shall be derived from the data qualifier for the enterprise identifier.

(d) For each item that requires unique item identification under paragraph (c)(1)(i) or (ii) of this clause, in addition to the information provided as part of the Material Inspection and Receiving Report specified elsewhere in this contract, the Contractor shall report at the time of delivery, either as part of, or associated with, the Material Inspection and Receiving Report, the following information:

(1) Unique item identifier.

(2) Unique item identifier type.

(3) Issuing agency code (if concatenated unique item identifier is used).

(4) Enterprise identifier (if concatenated unique item identifier is used).

(5) Original part number (if there is serialization within the original part number).

(6) Lot or batch number (if there is serialization within the lot or batch number).

(7) Current part number (optional and only if not the same as the original part number).

(8) Current part number effective date (optional and only if current part number is used).

(9) Serial number (if concatenated unique item identifier is used).

(10) Governments unit acquisition cost.

(11) Unit of measure.

(e) For embedded subassemblies, components, and parts that require DoD unique item identification under paragraph (c)(1)(iii) of this clause, the Contractor shall report as part of, or associated with, the Material Inspection and Receiving Report specified elsewhere in this contract, the following information:

(1) Unique item identifier of the parent item under paragraph (c)(1) of this clause that contains the embedded subassembly, component, or part.

(2) Unique item identifier of the embedded subassembly, component, or part.

(3) Unique item identifier type.**

(4) Issuing agency code (if concatenated unique item identifier is used).**

(5) Enterprise identifier (if concatenated unique item identifier is used).**

(6) Original part number (if there is serialization within the original part number).**

(7) Lot or batch number (if there is serialization within the lot or batch number).**

(8) Current part number (optional and only if not the same as the original part number).**

(9) Current part number effective date (optional and only if current part number is used).**

(10) Serial number (if concatenated unique item identifier is used).**

(11) Description.

** Once per item.

(f) The Contractor shall submit the information required by paragraphs (d) and (e) of this clause in accordance with the data submission procedures at

http://www.acq.osd.mil/dpap/pdi/uid/data_submission_information.html.

(g) Subcontracts. If the Contractor acquires by subcontract, any item(s) for which unique item identification is required in accordance with paragraph (c)(1) of this clause, the Contractor shall include this clause, including this paragraph (g), in the applicable subcontract(s).

(End of clause)

F-9 252.211-7006 PASSIVE RADIO FREQUENCY IDENTIFICATION SEP/2011

(a) Definitions. As used in this clause--

"Advance shipment notice" means an electronic notification used to list the contents of a shipment of goods as well as additional information relating to the shipment, such as passive radio frequency dentification (RFID) or item unique identification (IUID) information, order information, product description, physical characteristics, type of packaging, marking, carrier information, and configuration of goods within the transportation equipment.

"Bulk commodities" means the following commodities, when shipped in rail tank cars, tanker trucks, trailers, other bulk wheeled conveyances, or pipelines:

(1) Sand.
(2) Gravel.
(3) Bulk liquids (water, chemicals, or petroleum products).
(4) Ready-mix concrete or similar construction materials.
(5) Coal or combustibles such as firewood.
(6) Agricultural products such as seeds, grains, or animal feed.

"Case" means either a MIL-STD-129 defined exterior container within a palletized unit load or a MIL-STD-129 defined individual shipping container.

"Electronic Product Code\TM\ (EPC)" means an identification scheme for universally identifying physical objects via RFID tags and other means. The standardized EPC\TM\ data consists of an EPC\TM\ (or EPC\TM\ identifier) that uniquely identifies an individual object, as well as an optional filter value when judged to be necessary to enable effective and efficient reading of the EPC\TM\ tags. In addition to this standardized data, certain classes of EPC\TM\ tags will allow user-defined data. The EPC\TM\ Tag Data Standards will define the length and position of this data, without defining its content.

"EPCglobal" means a subscriber-driven organization comprised of industry leaders and organizations focused on creating global standards for the adoption of passive RFID technology.

"Exterior container" means a MIL-STD-129 defined container, bundle, or assembly that is sufficient by reason of material, design, and construction to protect unit packs and intermediate containers and their contents during shipment and storage. It can be a unit pack or a container with a combination of unit packs or intermediate containers. An exterior container may or may not be used as a shipping container.

"Palletized unit load" means a MIL-STD-129 defined quantity of items, packed or unpacked, arranged on a pallet in a specified manner and secured, strapped, or fastened on the pallet so that the whole palletized load is handled as a single unit. A palletized or skidded load is not considered to be a shipping container. A loaded 463L System pallet is not considered to be a palletized unit load. Refer to the Defense Transportation Regulation, DoD 4500.9-R, Part II, Chapter 203, for marking of 463L System pallets.

"Passive RFID tag" means a tag that reflects energy from the reader/interrogator or that receives and temporarily stores a small amount of energy from the reader/interrogator signal in order to generate the tag response. The only acceptable tags are EPC Class 1 passive RFID tags that meet the EPCglobal\TM\ Class 1 Generation 2 standard.

"Radio frequency identification (RFID)" means an automatic identification and data capture technology comprising one or more reader/interrogators and one or more radio frequency transponders in which data transfer is achieved by means of suitably modulated inductive or radiating electromagnetic carriers.

"Shipping container" means a MIL-STD-129 defined exterior container that meets carrier regulations and is of sufficient strength, by reason of material, design, and construction, to be shipped safely without further packing (e.g., wooden boxes or crates, fiber and metal drums, and corrugated and solid fiberboard boxes).

(b)(1) Except as provided in paragraph (b)(2) of this clause, the Contractor shall affix passive RFID tags, at the case- and palletized-unit-load packaging levels, for shipments of items that--

(i) Are in any of the following classes of supply, as defined in DoD 4140.1-R, DoD Supply Chain Materiel Management Regulation, AP1.1.11:

(A) Subclass of Class I--Packaged operational rations.

(B) Class II--Clothing, individual equipment, tentage, organizational tool kits, hand tools, and administrative and housekeeping supplies and equipment.

(C) Class IIIP--Packaged petroleum, lubricants, oils, preservatives, chemicals, and additives.

(D) Class IV--Construction and barrier materials.

(E) Class VI--Personal demand items (non-military sales items).

(F) Subclass of Class VIII--Medical materials (excluding pharmaceuticals, biologicals, and reagents--suppliers should limit the mixing of excluded and non-excluded materials).

(G) Class IX--Repair parts and components including kits, assemblies and subassemblies, reparable and consumable items required for maintenance support of all equipment, excluding medical-peculiar repair parts; and

(ii) Are being shipped to one of the locations listed at http://www.acq.osd.mil/log/rfid/ or to--

(A) A location outside the contiguous United States when the shipment has been assigned Transportation Priority 1, or to--

(B) The following location(s) deemed necessary by the requiring activity:

Contract line, subline, or exhibit line item number	Location name	City	State	DoDAAC
N/A	N/A	N/A	N/A	N/A

(2) The following are excluded from the requirements of paragraph (b)(1) of this clause:

(i) Shipments of bulk commodities.

(ii) Shipments to locations other than Defense Distribution Depots when the contract includes the clause at FAR 52.213-1, Fast Payment Procedures.

(c) The Contractor shall--

(1) Ensure that the data encoded on each passive RFID tag are globally unique (i.e., the tag ID is never repeated across two or more RFID tags) and conforms to the requirements in paragraph (d) of this clause;

(2) Use passive tags that are readable; and

(3) Ensure that the passive tag is affixed at the appropriate location on the specific level of packaging, in accordance with MIL-STD-129 (Section 4.9.2) tag placement specifications.

(d) Data syntax and standards. The Contractor shall encode an approved RFID tag using the instructions provided in the EPC\TM\ Tag Data Standards in effect at the time of contract award. The EPC\TM\ Tag Data Standards are available at http://www.epcglobalinc.org/standards/.

(1) If the Contractor is an EPCglobal\TM\ subscriber and possesses a unique EPC\TM\ company prefix, the Contractor may use any of the identifiers and encoding instructions described in the most recent EPC\TM\ Tag Data Standards document to encode tags.

(2) If the Contractor chooses to employ the DoD identifier, the Contractor shall use its previously assigned Commercial and Government Entity (CAGE) code and shall encode the tags in accordance with the tag identifier details located at http://www.acq.osd.mil/log/rfid/tag_data.htm. If the Contractor uses a third-party packaging house to encode its tags, the CAGE code of the third-party packaging house is acceptable.

(3) Regardless of the selected encoding scheme, the Contractor with which the Department holds the contract is responsible for ensuring that the tag ID encoded on each passive RFID tag is globally unique, per the requirements in paragraph (c)(1) of this clause.

(e) Advance shipment notice. The Contractor shall use Wide Area WorkFlow (WAWF), as required by DFARS 252.232-7003, Electronic Submission of Payment Requests, to electronically submit advance shipment notice(s) with the RFID tag ID(s) (specified in paragraph (d) of this clause) in advance of the shipment in accordance with the procedures at https://wawf.eb.mil/.

(End of clause)

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 ORGANIZATIONAL CONFLICT OF INTEREST

H.1.1 The Contractor and its subcontractors, consultants, parents, subsidiaries, joint ventures, or other business affiliates of any tier may be excluded from performing under this JLTV contract if the Contracting Officer finds an organizational conflict of interest due to bias or unfair competitive advantage. A similar provision is expected to apply to follow-on JLTV solicitations and contracts. Exceptions may be granted by modification to the contract for relationships where the Government agrees that either 1) the potential for bias or unfair competitive advantage is essentially non-existent, 2) a means of controlling the relationship to effectively neutralize the potential conflict can be reached, or 3) there is no way to perform the Governments requirements without such potential. This restriction begins on the date of award of this contract or any subcontract or other relationship hereunder and expires on the completion of the contract/subcontract.

H.1.2 The Contractor shall flow down this provision in any subcontracts or other related instruments (of all tiers). The Contractor shall monitor activities of itself and subcontractors and related entities, and promptly disclose any actual or potential OCOI and any actions taken or proposed to negate or mitigate such conflicts.

H.1.3 Remedies. For breach of any of the above restrictions or for nondisclosure or misrepresentation of any relevant facts required to be disclosed concerning this contract, the Government may terminate the contract for default, disqualify the Contractor for subsequent related contractual efforts and pursue such other remedies as may be permitted by law or this contract.

*** END OF NARRATIVE H0001 ***

H.2 WIDE AREA WORK FLOW (WAWF) RECEIVING REPORTS.

The Government may require copies of the WAWF Receiving Report, Bills of Lading, or other documentation to resolve delinquencies, payment issues, or other administrative issues. If this documentation is requested, use the following email address or fax number to submit the information: DAMI_DD250@conus.army.mil or (586) 282-7788. No copies of the WAWF Receiving Report are required unless specifically requested by the PCO, buyer, or other appropriate government official.

*** END OF NARRATIVE H0002 ***

H.3 PROGRAM SECURITY AND PUBLIC RELEASE

(a) Program Security. During performance of work on this contract, the Contractor shall provide protection as required by the DD Form 254, Contract Security Classification Specification, (Attachment 44), and shall require appropriate levels of program security in subcontracts issued hereunder for performance of JLTV work.

(b) Protection and Disclosure of Information - Public Release

(1) Except for JLTV Program information previously approved for public release by the Government under the JLTV Program, the contractor shall not release any JLTV Program information regarding the work perfomed under this contract outside of (i) the United States Government, (ii) its own facility, (iii) its subcontractors performing JLTV work at any tier; and (iv) Associate Contractors, at any tier, and (v) any other individual or entity that is contractually bound to protect JLTV Program Information from public release without first obtaining approval for Public Release as identified in the DD254 and per this clause.

(2) The Contractor shall send all such requests for public-release approval to the PCO in accordance with Clause 252.204-7000 for a review by PM JLTV technical and Security Office personnel, culminating in a determination by the Procuring Contracting Officer (PCO), or authorized representative. The PCO, or authorized representative, will, after appropriate review, either authorize or reject the request to disseminate JLTV Program information publicly. Note that authorization may be given contingent on specified changes being made to the material for which public release has been requested. Subcontractors and Associate Contractors shall submit such public-release requests through the prime contractor.

(c) In performing this contract, contractors shall use computer and communications equipment that meets the requirements identified in the DD254 (if applicable).

(d) Lower Tier Subcontracts. Contractors shall include subparagraph (b) above, appropriately modified to identify the contractual parties, in all subcontracts that contractors executes for performance of JLTV work, and shall require such inclusion in all subsequent subcontracts, regardless of tier.

(e) Shipment of Controlled Materials. Unless otherwise directed by the PCO, Contractors shall coordinate and send advance notice of

shipment to the consignee transportation officer for all shipments of classified material, protected sensitive, and protected controlled material; explosives and poisons, classes A and B; radioactive materials requiring the use of a III bar label; or when a truckload/carload shipment of supplies weighing 20,000 pounds or more, or a shipment of less weight that occupies the full visible capacity of a railway car or motor vehicle, is given to any carrier for transportation to a domestic destination (other than a port for export).

*** END OF NARRATIVE H0003 ***

H.4 ADDITIONAL PROGRAM PROTECTION REQUIREMENTS
The following incidents and situations will be reported through the Facility Security Officer to the nearest U.S. Army Counterintelligence (CI) office and the Defense Security Service as required by DoD 5220.22-M, National Industrial Security Program Operating Manual. If the U.S. Army CI office is not readily available, the FSO or representative security individual will report the information to the program Government Security Office, which will ensure that reports are relayed, within 24 hours, IAW AR 381-12, Subversion and Espionage Directed Against the U.S. Army (SAEDA), to U.S. Army CI:

a. Attempts by unauthorized persons to obtain classified or unclassified information concerning U.S. Army facilities, activities, personnel, technology, or material through questioning, elicitation, trickery, bribery, threats, coercion, blackmail, photography, observation, collection of documents or material, correspondence, or computer hacking.

b. Known, suspected, or contemplated acts of espionage.

c. Contacts with persons whom they know or suspect to be members of or associated with foreign intelligence, security, or terrorist organizations. These do not include contacts as a part of official duties.

d. Contacts with any official or other citizen of a foreign country when that person
(l) Exhibits excessive knowledge or undue interest about the employee or his duties.
(2) Exhibits undue interest in U.S. technology; research, development, testing, and evaluation efforts; weapons systems; or scientific information.
(3) Attempts to obtain classified or unclassified information.
(4) Attempts to place employee under obligation through special treatment, favors, gifts, money, or other means.
(5) Attempts to establish any type of business relationship that is outside the range of normal official duties.

e. All incidents in which employees or their family members traveling to or through foreign countries are
(l) Subjected to questions regarding their duties.
(2) Requested to provide military information.
(3) Threatened, coerced, or pressured in any way to cooperate with a foreign intelligence service or foreign government official.
(4) Offered assistance in gaining access to people or locations not routinely afforded Americans.
(5) Contacted by foreign government law enforcement, security, or intelligence officials.

f. Information concerning any international or domestic terrorist activity or sabotage that poses an actual or potential threat to Army or other U.S. facilities, activities, personnel, or resources.

g. Any known or suspected illegal diversion or attempted illegal diversion of U.S. technology to a foreign country.

h. Active attempts to encourage employees to violate laws, disobey lawful orders or regulations, or disrupt military activities (subversion).

i. Known or suspected acts of treason.

j. Participation in activities advocating or teaching the overthrow of the United States by force or violence or seeking to alter the form of Government by unconstitutional means (sedition).

k. Known, suspected, or attempted intrusions into classified or unclassified information systems by unauthorized users or by authorized users attempting to gain unauthorized access. (See CUI Attachment for further definitions and instructions.)

l. Any situation involving coercion, influence, or pressure brought to bear on employees through family members residing in foreign countries.

*** END OF NARRATIVE H0004 ***

H.5 FOREIGN ACCESS TO TECHNOLOGY

(a) Definitions

(1) "Foreign Firm or Institution" means a firm or institution organized or existing under the laws of a country other than the United States, its territories, or possessions. The term includes, for purposes of this Contract, any agency or instrumentality of a foreign government; and firms, institutions or business organizations that are owned or substantially controlled by foreign governments, firms, institutions, or individuals.

(2) "Foreign Person" means any natural person who (i) is not a lawful permanent resident of the United States, or of its territories or possessions, as defined by 8 U.S.C. 1101(a)(20) or who (ii) is not a protected individual as defined by 8 U.S.C. 1324b(a)(3). It also means any foreign corporation, business association, partnership, trust, society or any other entity or group that is not incorporated or organized to do business in the United States, as well as international organizations, foreign governments and any agency or subdivision of foreign governments (e.g., diplomatic missions).

(b) Export Compliance

(1) Contractors shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this Contract.

(2) Pursuant to ITAR Section 125.4(b)(3), Contractors may disclose classified and unclassified export-controlled technical data to foreign persons when the following conditions apply:

A. The technical data does not disclose details of the design, development, production, or manufacture of any defense article as limited by paragraph 125.4(b)(3).

B. The disclosure supports the programmatic objectives of the PM, and relates to technical specifications, design architecture, functional requirements, performance models, purchase orders, and statements of work (SOW).

(3) Pursuant to ITAR paragraph 125.4(b)(1), Contractors may disclose classified and unclassified export-controlled technical data to foreign persons when the following conditions apply:

A. DASA DE&C provides written direction to Contractors to disclose ITAR-controlled technical data to a Foreign Person. The PM may request the contractor to provide copies of the data/information that will be disclosed to the Foreign Person as part of the affirmation process with DASA DE&C.

B. If the PM directs the contractor to provide export-controlled technical data to a Foreign Person that is beyond the scope authorized under ITAR Section 125.4(b)(3), then the Contractor shall, pursuant to ITAR section 125.4(b)(1), document the request and submit a written request to the PM who will certify the conditions specified by the contractor exist. The PM will provide the certification to DASA DE&C who may affirm the use of the exemption, in writing to the contractor, provided the conditions certified by the PM satisfies the ITAR.

(4) All technical data that is exported under ITAR Sections 125.4(b)(1) or 125.4(b)(3) must be reviewed and approved by the US Army in accordance with approved disclosure guidelines for JLTV.

(5) Before authorizing CUI disclosures, the PM Disclosure Authority shall ensure that the contract or agreement contains the requisite access, use, and distribution clauses required before disclosing CUI with another government, international organization, or foreign contractor (pursuant to SAAL-RP memo, 27 May 2000, Subject: Authority to Disclose Technical Controlled Unclassified Information (CUI)).

(c) Lower Tier Contracts/Subcontracts

The Contractor shall include the above provision, suitably modified to identify the parties, in all subcontracts hereunder.

*** END OF NARRATIVE H0005 ***

H.6 DEFINITION

(a) As referred to in this contract, the number of days refers to calendar days unless stated otherwise.

*** END OF NARRATIVE H0006 ***

H.7 UTILIZATION OF SMALL BUSINESS CONCERNS AND SUBCONTRACTING PLAN COMPLIANCE SURVEILLANCE
(a) Achievement of Utilization of Small Business Concerns (Applies to all offerors). The Contractor will be required, upon request by the Contracting Officer to provide rationale and/or evidence to substantiate its compliance with the Utilization of Small Business Concerns clause (FAR 52.219-8) as part of the monitoring throughout contract performance. The Contracting Officer will request such information at a minimum of twice a year (for Large businesses, in conjunction with the eSRS reporting periods outlined in 52.219-9 (Alt II)), to assess the Contractors performance of this requirement.

(b) Achievement of Subcontracting Goals in the Small Business Subcontracting Plan (Not applicable to U.S. Small Business Concerns). The contractor's performance against subcontracting goals in the Small Business Subcontracting Plan incorporated in this contract will be monitored in accordance with FAR Clause 52.219-9 (Alt II) by the Contracting Officer for the duration of the contract. The Contractor will be required, upon request by the Contracting Officer, to provide rationale and/or evidence to substantiate its good faith effort to comply with subcontracting goals as part of the monitoring throughout contract performance. The Contracting Officer will request such information at a minimum of twice a year in conjunction with the eSRS reporting periods outlined in 52.219-9 (Alt II)), to assess the Contractors performance of this requirement. The rationale and/or evidence that the Contractor is requested to provide may be in addition to the explanations relating to the use of small businesses and the attainment of subcontracting goals that the Contractor has entered in the Remarks section of its eSRS submissions. The Contractors efforts towards small business utilization on this contract will be included and evaluated as part of CPARS. FAR 52.219-9 (k)(2) states that a failure of the contractor or subcontractor to comply in good faith with the subcontracting plan incorporated into this contract is considered a breach of contract. The Government will invoke liquidated damages if the Contracting Officer makes a determination that the contractor has failed to make a good faith effort to comply with the requirements of the subcontracting plan incorporated in this contract, as prescribed in FAR Clause 52.219-16 - Liquidated Damages - Subcontracting Plan.

(c) The contractor's Subcontracting Plan dated 2012MAY30 is incorporated into the contract (Attachment 55).

*** END OF NARRATIVE H0007 ***

H.8 OPTIONS FOR ADDITIONAL LEVEL OF EFFORT

H.8.1 Contract Administration/ Ordering
All contract administration/option ordering and communications pertaining to contractual administration will be effected by the Contracting Officer, address as shown on the face page of this contract. No changes in or deviation from the scope of work or Work Directives shall be effected without written authorization by the Contracting Officer authorizing such changes. The Contractor shall not accept any instructions by any person other than the Contracting Officer or the Contracting Officer's Representative.

H.8.2 Services To Be Performed

H.8.2.1 The parties to this Contract recognize and agree that the services to be provided hereunder will be provided only in strict accordance with the Scope of Work set forth herein. This is to ensure that the policies in Office of Federal Procurement Policy Letter 92-1 and the Department of Defense (DOD) Directive 4205-2 are adhered to. Contractors are specifically prohibited from performing inherently Government functions. Appropriate Agency control of the work product must be preserved to ensure that the Contractor's performance of permissible services does not approach being an inherently Governmental function because of the manner in which the contract is performed or administered. Additionally, this contract is not to be used under any circumstances specifically to aid in influencing or enacting legislation.

H.8.2.2 Contractor personnel rendering the services under this contract are not subject, by contract terms or in the manner of its administration, to the supervision and control usually prevailing in relationships between the Government and its employees. The Contractor further agrees to refrain from any activity that will make their personnel appear, in effect, to be government employees.

H.8.3 CLIN 0015 Options For Additional Level Of Effort
H.8.3.1 The Government reserves the right to unilaterally require additional work effort to be provided under this contract. This work effort is described in the contract Scope of Work, Section C.25 and more specifically by Work Directives. CLIN 0015 Options may be exercised by the Government at any time after contract award, but not later than the time limit specified below:

CLIN	DESCRIPTION	TIME LIMIT
0015	Options For Additional Level Of Effort	No later than completion date of the contract

H.8.3.2 The Government will have the unilateral right to call-up 10,000 man-hour options of any mix of Direct Labor categories, and place the hours under the CLIN 0015 in Section B, at the fixed price man-hour rates as stated in Attachment 53 of the contract. The Government may exercise this option in more than one increment. The labor rates in this section reflect the fully-burdened rates for

each labor category and will apply to all direct labor hours. The loaded hourly rates are Not-to-Exceed Fixed-priced rates.

H.8.3.2.1 The Section B fixed-price man-hour rates represent fully loaded hourly rates for each skill classification. The fully-loaded labor rates include all direct, indirect overhead, general and administrative expenses, management oversight and profit associated with providing the required skill. The fully-loaded labor rates include all labor and labor-related costs, such as: salaries, wages, bonuses to include stock bonuses, incentive awards, employee stock options, stock appreciation rights, employee stock ownership plans, employee insurance, fringe benefits, contributions to pension, other post-retirement benefits, annuity, employee incentive compensation plans, incentive pay, vacation time, sick pay, jury duty, holidays and etc. The use of uncompensated overtime is not encouraged. All hourly rates are based on a man-year equivalent year, typically 2,080 hours.

H.8.3.3 The Fixed Price Man-hours awarded for R&D funded Level-of-Effort will be stated in CLIN 0015 of Section B.

H.8.3.4 The Government may exercise the Option in more than one increment, but the total man-hours added to the contract by the exercise of Option shall not exceed 10,000.

H.8.3.5 The following are the Direct Labor categories, with a description or each category, required to be provided by the contractor for this option effort:

a. Heavy Equipment Mechanic (8+ Years Experience):

1) Proven maintenance, repair and technical experience and background in industrial manufacturing, commercial maintenance or military operations or maintenance.

2) Preferred areas of experience may be with light or heavy duty trucks, tractors, tactical vehicles, ground systems, generators, power plants, aircraft or diesel or gasoline powered equipment or vehicle.

3) Maintenance support includes operations, system troubleshooting, engineering, design, installation, analysis, maintenance and repair of U.S. systems and subsystems to component level.

4) Proficient with a variety of hand tools, diagnostic tools, power tools, multi-meters.

5) Effectively applies industry or military standard troubleshooting procedures to localize and isolate faulty system components.

b. Certified Welder (6+ Years Experience):

1) An experienced welder (e.g., MIG, TIG, ARC, etc.) with AWS D1.1 certification.

2) Have institutional knowledge of electromechanical, mechanical, and pneumatic skills acquired through years of direct military or commercial support to maintain U.S. proprietary low-density systems.

3) Performs welding on ballistic hulls and metals, reads blueprints and associated installation instructions, and perform assembly within specified tolerances.

4) Proficient in FCAW and SMAW processes. Provides design details and recommends modifications to engineering designs as needed.

5) Prepares instructional guides for repairing, calibrating and maintaining equipment and systems.

c. Associate mechanic (2+ Years Experience)

1) Maintenance, repair and technical experience and background in industrial manufacturing, commercial maintenance or military operations or maintenance.

2) Preferred areas of commercial or military experience may be with light or heavy duty trucks, tractors, tactical vehicles, generators, power plants, aircraft or diesel or gasoline powered equipment or vehicle.

3) Mechanical and electronic troubleshooting skills to diagnose align and repair failed and damaged systems.

4) Vocational, Technical, Military formal certificates of training in a related maintenance field may be substituted for equivalent years of experience.

d. Engineer (5+ Years Experience)

1) Possess a minimum of a Bachelor of Science degree in an applied engineering field.

2) Proven experience in engineering analysis and design of mechanical, electrical and structural systems and subsystems along with proven experience in material analysis.

3) Effectively applies industry standard practices for failure analysis, modeling and simulation, development of repair procedures, and configuration management.

4) Possess institutional knowledge of the JLTV EMD effort and the specific area under evaluation.

H.8.3.6 CLIN 0015 Man-Hours Awarded And Available:

a. Man-hours awarded: 0 Man-hours

b. The total number of available man-hours for award: 10,000 Man-hours

*** END OF NARRATIVE H0008 ***

H.9 TEST RANGE USAGE
The Contractor is authorized to receive test services from a Major Range Test Facility Base and receive the Government furnished rate.

*** END OF NARRATIVE H0009 ***

H.10 TITLE OF PROPERTY TRANSFER
The Contractor shall transfer title to the Government of any additional furnished material, parts, or equipment installed or incorporated on to Government owned test assets after inspection and acceptance of the test assets.

*** END OF NARRATIVE H0010 ***

H.11 ALTERNATIVE FINANCING ARRANGEMENTS

H.11.1 Proposal and award will be based on the use of customary progress payments, in accordance with Office of the Under Secretary of Defense for Acquisition, Technology and Logistics memorandum dated April 27 2011, Subject Cash Flow Tool for Evaluating Alternative Financing Arrangements. Pursuant to the memo, after contract award, the contractor may propose alternative financing arrangements, such as performance based payments schedule, to the Contracting Officer for consideration. If a proposed performance based payment scheduled is desired by the contractor, the proposed performance based schedule should be submitted which includes all performance based payment events, completion criteria, and event values along with the contractors expected expenditure profile, and any consideration being offered by the contractor for more favorable payment structure.

*** END OF NARRATIVE H0011 ***

H.12 IDENTIFICATION AND ASSERTION OF RESTRICTION ON THE GOVERNMENT USE, RELEASE, OR DISCLOSURE OF TECHNICAL DATA OR COMPUTER SOFTWARE

H.12.1 The contractor's Identification and Assertion of Restriction on the Government Use, Release, or Disclosure of Technical Data or Computer Software is incorporated into the contract (Attachment 54).

*** END OF NARRATIVE H0012 ***

	Regulatory Cite	Title	Date
H-1	252.222-7006	RESTRICTIONS ON THE USE OF MANDATORY ARBITRATION AGREEMENTS	DEC/2010
H-2	52.204-4005	REQUIRED USE OF ELECTRONIC CONTRACTING	SEP/2004

(a) All contract awards, modifications and delivery orders issued by Army Contracting Command - Warren (DTA) will be issued electronically. The contractor has the option to receive these actions either via the Worldwide Web (WWW) or Electronic Data Interchange (EDI). Many provisions/clauses that appear "by reference," meaning only clause titles and regulation site are listed; their full texts can be found at the website http://farsite.hill.af.mil/

(b) In order to be eligible to receive an award under this solicitation, the successful offeror must be registered with the Department of Defense (DOD) Central Contractor Registration (CCR). The CCR registration process may be done electronically at the World Wide Web (WWW) site: http://www.ccr.gov/ . (In order to be registered to use EDI, you must use the long form for registration. Certification information, including information on the EDI 838 TPP, must be furnished to the Contracting Officer within 60 calendar days after contract award to complete networking requirements within the Government.)

(c) Worldwide Web Distribution. The contractor will receive an electronic Notice of the Award, Modification, or Delivery Order via e-mail. If you choose the WWW option, you must download the file from the appropriate Army Contracting Command - Warren webpage:

Warren: http://contracting.tacom.army.mil/CFDATA/AWARDS/AWARD_RPT01.cfm
Rock Island - JMTC: https://acquisition.army.mil/asfi/
Red River Army Depot: https://acquisition.army.mil/asfi/
Anniston Army Depot: https://acquisition.army.mil/asfi/

(d) Electronic Data Interchange. If you choose to receive contract awards, modifications and delivery orders through EDI, they will be delivered electronically via the Federal Acquisition Network (FACNET). Federal Standard Version 3050 of Standard X12 from the American National Standards Institute (ANSI) will be used as the format for these electronic transactions.

(1) You must complete the EDI 838 Trading Partner Profile, and must agree (i) to subcontract with a DoD certified VAN or Value Added Service (VAS) provider, or (ii) to become DoD certified as a Value Added Network (VAN). The EDI 838 Training Partner Profile is contained in the basic CCR registration form and includes portions of the registration form which are titled "Optional".

(2) You must select a VAN from the official DoD approved list. DoD Certified VANs are listed at http://www.acq.osd.mil/dpap/ebiz/VANs.htm . If your VAN is later removed from the official list, or if you voluntarily drop your initially selected VAN, then you must switch to a VAN that remains on the official DoD approved list. You must maintain an active account on a DoD approved VAN for the entire duration of the contract, beginning no later than the 60th day after award.

(e) Unless otherwise specified elsewhere in the contract, all data items you are required to provide under this contract must be submitted electronically. Please go to the following webpage for detailed information about submitting your offer electronically: http://contracting.tacom.army.mil/acqinfo/ebidnotice.htm

(f) Additional information can be obtained by sending a message to: usarmy.detroit.acc.mbx.wrn-web-page@mail.mil or by calling (586) 282-7059.

SECTION I - CONTRACT CLAUSES

	Regulatory Cite	Title	Date
I-1	52.202-1	DEFINITIONS	JAN/2012
I-2	52.203-3	GRATUITIES	APR/1984
I-3	52.203-5	COVENANT AGAINST CONTINGENT FEES	APR/1984
I-4	52.203-6	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT	SEP/2006
I-5	52.203-7	ANTI-KICKBACK PROCEDURES	OCT/2010
I-6	52.203-8	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY	JAN/1997
I-7	52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	JAN/1997
I-8	52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	OCT/2010
I-9	52.203-13	CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT	APR/2010
I-10	52.204-2	SECURITY REQUIREMENTS	AUG/1996
I-11	52.204-4	PRINTED OR COPIED DOUBLE-SIDED ON POSTCONSUMER FIBER CONTENT PAPER	MAY/2011
I-12	52.204-7	CENTRAL CONTRACTOR REGISTRATION	FEB/2012
I-13	52.204-9	PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL	JAN/2011
I-14	52.204-10	REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS	FEB/2012
I-15	52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT	DEC/2010
I-16	52.209-9	UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS	FEB/2012
I-17	52.210-1	MARKET RESEARCH	APR/2011
I-18	52.211-5	MATERIAL REQUIREMENTS	AUG/2000
I-19	52.211-15	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS	APR/2008
I-20	52.215-2	AUDIT AND RECORDS--NEGOTIATIONS	OCT/2010
I-21	52.215-8	ORDER OF PRECEDENCE--UNIFORM CONTRACT FORMAT	OCT/1997
I-22	52.215-11	PRICE REDUCTION FOR DEFECTIVE CERTIFIED COST OR PRICING DATA--MODIFICATIONS	AUG/2011
I-23	52.215-13	SUBCONTRACTOR CERTIFIED COST OR PRICING DATA--MODIFICATIONS	OCT/2010
I-24	52.215-14	INTEGRITY OF UNIT PRICES	OCT/2010
I-25	52.215-23	LIMITATIONS ON PASS-THROUGH CHARGES	OCT/2009
I-26	52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS	JAN/2011
I-27	52.219-9	SMALL BUSINESS SUBCONTRACTING PLAN (JAN 2011) -- ALTERNATE II (OCT 2001)	OCT/2001
I-28	52.219-16	LIQUIDATED DAMAGES--SUBCONTRACTING PLAN	JAN/1999
I-29	52.222-1	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES	FEB/1997
I-30	52.222-19	CHILD LABOR--COOPERATION WITH AUTHORITIES AND REMEDIES	MAR/2012
I-31	52.222-20	WALSH-HEALEY PUBLIC CONTRACTS ACT	OCT/2010
I-32	52.222-21	PROHIBITION OF SEGREGATED FACILITIES	FEB/1999
I-33	52.222-26	EQUAL OPPORTUNITY	MAR/2007
I-34	52.222-35	EQUAL OPPORTUNITY FOR VETERANS	SEP/2010
I-35	52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	OCT/2010
I-36	52.222-37	EMPLOYMENT REPORTS ON VETERANS	SEP/2010
I-37	52.222-40	NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT	DEC/2010
I-38	52.222-50	COMBATING TRAFFICKING IN PERSONS	FEB/2009
I-39	52.222-54	EMPLOYMENT ELIGIBILITY VERIFICATION	JAN/2009
I-40	52.223-5	POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION	MAY/2011
I-41	52.223-6	DRUG-FREE WORKPLACE	MAY/2001
I-42	52.223-18	ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING	AUG/2011
I-43	52.223-19	COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT SYSTEMS	MAY/2011
I-44	52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	JUN/2008
I-45	52.227-1	AUTHORIZATION AND CONSENT (DEC 2007) -- ALTERNATE I (APR 1984)	APR/1984
I-46	52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	DEC/2007
I-47	52.227-3	PATENT INDEMNITY	APR/1984
I-48	52.227-10	FILING OF PATENT APPLICATIONS--CLASSIFIED SUBJECT MATTER	DEC/2007
I-49	52.229-3	FEDERAL, STATE, AND LOCAL TAXES	APR/2003
I-50	52.232-1	PAYMENTS	APR/1984
I-51	52.232-2	PAYMENTS UNDER FIXED-PRICE RESEARCH AND DEVELOPMENT CONTRACTS	APR/1984
I-52	52.232-8	DISCOUNTS FOR PROMPT PAYMENT	FEB/2002
I-53	52.232-11	EXTRAS	APR/1984
I-54	52.232-17	INTEREST	OCT/2010
I-55	52.232-23	ASSIGNMENT OF CLAIMS (JAN 1986) -- ALTERNATE I (APR 1984)	APR/1984
I-56	52.232-25	PROMPT PAYMENT	OCT/2008

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I-57	52.232-33	PAYMENT BY ELECTRONIC FUNDS TRANSFER--CENTRAL CONTRACTOR REGISTRATION	OCT/2003
I-58	52.233-1	DISPUTES	JUL/2002
I-59	52.233-3	PROTEST AFTER AWARD	AUG/1996
I-60	52.233-4	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM	OCT/2004
I-61	52.242-13	BANKRUPTCY	JUL/1995
I-62	52.243-1	CHANGES--FIXED PRICE	AUG/1987
I-63	52.243-6	CHANGE ORDER ACCOUNTING	APR/1984
I-64	52.244-5	COMPETITION IN SUBCONTRACTING	DEC/1996
I-65	52.244-6	SUBCONTRACTS FOR COMMERCIAL ITEMS	DEC/2010
I-66	52.245-1	GOVERNMENT PROPERTY	APR/2012
I-67	52.245-9	USE AND CHARGES	APR/2012
I-68	52.246-24	LIMITATION OF LIABILITY--HIGH-VALUE ITEMS	FEB/1997
I-69	52.247-63	PREFERENCE FOR U.S.-FLAG AIR CARRIERS	JUN/2003
I-70	52.247-68	REPORT OF SHIPMENT (REPSHIP)	FEB/2006
I-71	52.248-1	VALUE ENGINEERING	OCT/2010
I-72	52.249-2	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE)	APR/2012
I-73	52.249-9	DEFAULT (FIXED-PRICE RESEARCH AND DEVELOPMENT)	APR/1984
I-74	52.253-1	COMPUTER GENERATED FORMS	JAN/1991
I-75	252.201-7000	CONTRACTING OFFICER'S REPRESENTATIVE	DEC/1991
I-76	252.203-7000	REQUIREMENTS RELATING TO COMPENSATION OF FORMER DOD OFFICIALS	SEP/2011
I-77	252.203-7001	PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES	DEC/2008
I-78	252.203-7002	REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS	JAN/2009
I-79	252.203-7003	AGENCY OFFICE OF THE INSPECTOR GENERAL	DEC/2011
I-80	252.204-7000	DISCLOSURE OF INFORMATION	DEC/1991
I-81	252.204-7003	CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT	APR/1992
I-82	252.204-7005	ORAL ATTESTATION OF SECURITY RESPONSIBILITIES	NOV/2001
I-83	252.204-7006	BILLING INSTRUCTIONS	OCT/2005
I-84	252.204-7008	EXPORT-CONTROLLED ITEMS	APR/2010
I-85	252.205-7000	PROVISION OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS	DEC/1991
I-86	252.209-7004	SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A TERRORIST COUNTRY	DEC/2006
I-87	252.211-7000	ACQUISITION STREAMLINING	OCT/2010
I-88	252.215-7000	PRICING ADJUSTMENTS	DEC/1991
I-89	252.219-7003	SMALL BUSINESS SUBCONTRACTING PLAN (DoD CONTRACTS)	SEP/2011
I-90	252.219-7004	SMALL BUSINESS SUBCONTRACTING PLAN (TEST PROGRAM)	JAN/2011
I-91	252.223-7004	DRUG-FREE WORK FORCE	SEP/1988
I-92	252.223-7006	PROHIBITION ON STORAGE AND DISPOSAL OF TOXIC AND HAZARDOUS MATERIALS	APR/1993
I-93	252.223-7008	PROHIBITION OF HEXAVALENT CHROMIUM	MAY/2011
I-94	252.225-7001	BUY AMERICAN ACT AND BALANCE OF PAYMENTS PROGRAM	OCT/2011
I-95	252.225-7002	QUALIFYING COUNTRY SOURCES AS SUBCONTRACTORS	APR/2003
I-96	252.225-7004	REPORT OF INTENDED PERFORMANCE OUTSIDE THE UNITED STATES AND CANADA--SUBMISSION AFTER AWARD	OCT/2010
I-97	252.225-7006	QUARTERLY REPORTING OF ACTUAL CONTRACT PERFORMANCE OUTSIDE THE UNITED STATES	OCT/2010
I-98	252.225-7009	RESTRICTION ON ACQUISITION OF CERTAIN ARTICLES CONTAINING SPECIALTY METALS	JAN/2011
I-99	252.225-7012	PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES	JUN/2010
I-100	252.225-7013	DUTY-FREE ENTRY	DEC/2009
I-101	252.225-7015	RESTRICTION ON ACQUISITION OF HAND OR MEASURING TOOLS	JUN/2005
I-102	252.225-7016	RESTRICTION ON ACQUISITION OF BALL AND ROLLER BEARINGS	JUN/2011
I-103	252.225-7030	RESTRICTION ON ACQUISITION OF CARBON, ALLOY, AND ARMOR STEEL PLATE	DEC/2006
I-104	252.225-7033	WAIVER OF UNITED KINGDOM LEVIES	APR/2003
I-105	252.226-7001	UTILIZATION OF INDIAN ORGANIZATIONS, INDIAN-OWNED ECONOMIC ENTERPRISES, AND NATIVE HAWAIIAN SMALL BUSINESS CONCERNS	SEP/2004
I-106	252.227-7013	RIGHTS IN TECHNICAL DATA--NONCOMMERCIAL ITEMS	FEB/2012
I-107	252.227-7014	RIGHTS IN NONCOMMERCIAL COMPUTER SOFTWARE AND NONCOMMERCIAL COMPUTER SOFTWARE DOCUMENTATION	FEB/2012
I-108	252.227-7015	TECHNICAL DATA--COMMERCIAL ITEMS	DEC/2011
I-109	252.227-7016	RIGHTS IN BID OR PROPOSAL INFORMATION	JAN/2011
I-110	252.227-7019	VALIDATION OF ASSERTED RESTRICTIONS--COMPUTER SOFTWARE	SEP/2011
I-111	252.227-7025	LIMITATIONS ON THE USE OR DISCLOSURE OF GOVERNMENT-FURNISHED INFORMATION MARKED WITH RESTRICTIVE LEGENDS	MAR/2011

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I-112	252.227-7026	DEFERRED DELIVERY OF TECHNICAL DATA OR COMPUTER SOFTWARE	APR/1988
I-113	252.227-7027	DEFERRED ORDERING OF TECHNICAL DATA OR COMPUTER SOFTWARE	APR/1988
I-114	252.227-7030	TECHNICAL DATA--WITHHOLDING OF PAYMENT	MAR/2000
I-115	252.227-7037	VALIDATION OF RESTRICTIVE MARKINGS ON TECHNICAL DATA	SEP/2011
I-116	252.227-7038	PATENT RIGHTS -- OWNERSHIP BY THE CONTRACTOR (LARGE BUSINESS)	DEC/2007
I-117	252.231-7000	SUPPLEMENTAL COST PRINCIPLES	DEC/1991
I-118	252.232-7003	ELECTRONIC SUBMISSION OF PAYMENT REQUESTS AND RECEIVING REPORTS	MAR/2008
I-119	252.232-7010	LEVIES ON CONTRACT PAYMENTS	DEC/2006
I-120	252.234-7004	COST AND SOFTWARE DATA REPORTING SYSTEM	NOV/2010
I-121	252.235-7003	FREQUENCY AUTHORIZATION	DEC/1991
I-122	252.235-7011	FINAL SCIENTIFIC OR TECHNICAL REPORT	NOV/2004
I-123	252.237-7010	PROHIBITION ON INTERROGATION OF DETAINEES BY CONTRACTOR PERSONNEL	NOV/2010
I-124	252.239-7001	INFORMATION ASSURANCE CONTRACTOR TRAINING AND CERTIFICATION	JAN/2008
I-125	252.242-7004	MATERIAL MANAGEMENT AND ACCOUNTING SYSTEM	MAY/2011
I-126	252.242-7006	ACCOUNTING SYSTEM ADMINISTRATION	FEB/2012
I-127	252.243-7001	PRICING OF CONTRACT MODIFICATIONS	DEC/1991
I-128	252.243-7002	REQUESTS FOR EQUITABLE ADJUSTMENT	MAR/1998
I-129	252.244-7000	SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS (DOD CONTRACTS)	SEP/2011
I-130	252.244-7001	CONTRACTOR PURCHASING SYSTEM ADMINISTRATION	MAY/2011
I-131	252.245-7001	TAGGING, LABELING, AND MARKING OF GOVERNMENT-FURNISHED PROPERTY	FEB/2011
I-132	252.245-7002	REPORTING LOSS OF GOVERNMENT PROPERTY	FEB/2011
I-133	252.245-7003	CONTRACTOR PROPERTY MANAGEMENT SYSTEM ADMINISTRATION	APR/2012
I-134	252.245-7004	REPORTING, REUTILIZATION, AND DISPOSAL	AUG/2011
I-135	252.246-7000	MATERIAL INSPECTION AND RECEIVING REPORT	MAR/2008
I-136	252.246-7001	WARRANTY OF DATA	DEC/1991
I-137	252.246-7003	NOTIFICATION OF POTENTIAL SAFETY ISSUES	JAN/2007
I-138	252.247-7023	TRANSPORTATION OF SUPPLIES BY SEA	MAY/2002
I-139	252.249-7002	NOTIFICATION OF ANTICIPATED CONTRACT TERMINATION OR REDUCTION	OCT/2010
I-140	52.223-7	NOTICE OF RADIOACTIVE MATERIALS	JAN/1997

(a) The Contractor shall notify the Contracting Officer or designee, in writing, 60 days prior to the delivery of, or prior to completion of any servicing required by this contract of, items containing either

(1) radioactive material requiring specific licensing under the regulations issued pursuant to the Atomic Energy Act of 1954, as amended, as set forth in Title 10 of the Code of Federal Regulations, in effect on the date of this contract, or

(2) other radioactive material not requiring specific licensing in which the specific activity is greater than 0.002 microcuries per gram or the activity per item equals or exceeds 0.01 microcuries.

Such notice shall specify the part or parts of the items which contain radioactive materials, a description of the materials, the name and activity of the isotope, the manufacturer of the materials, and any other information known to the Contractor which will put users of the items on notice as to the hazards involved (OMB No. 9000-0107).

(b) If there has been no change affecting the quantity of activity, or the characteristics and composition of the radioactive material from deliveries under this contract or prior contracts, the Contractor may request that the Contracting Officer or designee waive the notice requirement in paragraph (a) of this clause. Any such request shall --

(1) Be submitted in writing;

(2) State that the quantity of activity, characteristics, and composition of the radioactive material have not changed; and

(3) Cite the contract number on which the prior notification was submitted and the contracting office to which it was submitted.

(c) All items, parts, or subassemblies which contain radioactive materials in which the specific activity is greater than 0.002 microcuries per gram or activity per item equals or exceeds 0.01 microcuries, and all containers in which such items, parts or subassemblies are delivered to the Government shall be clearly marked and labeled as required by the latest revision of MIL-STD 129 in effect on the date of the contract.

(d) This clause, including this paragraph (d), shall be inserted in all subcontracts for radioactive materials meeting the criteria in paragraph (a) of this clause.

(End of Clause)

I-141 52.232-16 PROGRESS PAYMENTS APR/2012

The Government will make progress payments to the Contractor when requested as work progresses, but not more frequently than monthly in amounts of $2,500 or more approved by the Contracting Officer, under the following conditions:

(a) Computation of amounts.

(1) Unless the Contractor requests a smaller amount, the Government will compute each progress payment as 80 percent of the Contractors total costs incurred under this contract whether or not actually paid, plus financing payments to subcontractors (see paragraph (j) of this clause), less the sum of all previous progress payments made by the Government under this contract. The Contracting Officer will consider cost of money that would be allowable under FAR 31.205-10 as an incurred cost for progress payment purposes.

(2) The amount of financing and other payments for supplies and services purchased directly for the contract are limited to the amounts that have been paid by cash, check, or other forms of payment, or that are determined due will be paid to subcontractors--

(i) In accordance with the terms and conditions of a subcontract of invoice; and

(ii) Ordinarily within 30 days of the submission of the Contractors payment request to the Government.

(3) The Government will exclude accrued costs of Contractor contributions under employee pension plans until actually paid unless--

(i) The Contractors practice is to make contributions to the retirement fund quarterly or more frequently; and

(ii) The contribution does not remain unpaid 30 days after the end of the applicable quarter or shorter payment period (any contribution remaining unpaid shall be excluded from the Contractors total costs for progress payments until paid).

(4) The Contractor shall not include the following in total costs for progress payment purposes in paragraph (a)(1) of this clause:

(i) Costs that are not reasonable, allocable to this contract, and consistent with sound and generally accepted accounting principles and practices.

(ii) Costs incurred by subcontractors or suppliers.

(iii) Costs ordinarily capitalized and subject to depreciation or amortization except for the properly depreciated or amortized portion of such costs.

(iv) Payments made or amounts payable to the subcontractors or suppliers, except for--

(A) completed work, including partial deliveries, to which the Contractor has acquired title; and

(B) Work under cost-reimbursement or time-and-material subcontracts to which the Contractor has acquired title.

(5) The amount of unliquidated progress payments may exceed neither (i) the progress payments made against incomplete work (including allowable unliquidated progress payments to subcontractors) nor (ii) the value, for progress payment purposes, of the incomplete work. Incomplete work shall be considered to be the supplies and services required by this contract, for which delivery and invoicing by the Contractor and acceptance by the Government are incomplete.

(6) The total amount of progress payments shall not exceed 80 percent of the total contract price.

(7) If a progress payment or the unliquidated progress payments exceed the amounts permitted by subparagraphs (a)(4) or (a)(5) above, the Contractor shall repay the amount of such excess to the Government on demand.

(8) Notwithstanding any other terms of the contract, the Contractor agrees not to request progress payments in dollar amounts of less than $2,500. The Contracting Officer may make exceptions.

(9) The costs applicable to items delivered, invoiced, and accepted shall not include costs in excess of the contract price of the items.

(b) Liquidation. Except as provided in the Termination for Convenience of the Government clause, all progress payments shall be liquidated by deducting from any payment under this contract, other than advance or progress payments, the unliquidated progress payments, or 80 percent of the amount invoiced, whichever is less. The Contractor shall repay to the Government any amounts required by a retroactive price reduction, after computing liquidations and payments on past invoices at the reduced prices and adjusting the unliquidated progress payments accordingly. The Government reserves the right to unilaterally change from the ordinary liquidation rate to an alternate rate when deemed appropriate for proper contract financing.

(c) Reduction or suspension. The Contracting Officer may reduce or suspend progress payments, increase the rate of liquidation, or take a combination of these actions, after finding on substantial evidence any of the following conditions:

(1) The Contractor failed to comply with any material requirement of this contract (which includes paragraphs (f) and (g) below).

(2) Performance of this contract is endangered by the Contractors --

(i) Failure to make progress; or
(ii) Unsatisfactory financial condition.

(3) Inventory allocated to this contract substantially exceeds reasonable requirements.

(4) The Contractor is delinquent in payment of the costs of performing this contract in the ordinary course of business.

(5) The fair value of the undelivered work is less than the amount of unliquidated progress payments for that work.

(6) The Contractor is realizing less profit than that reflected in the establishment of any alternate liquidation rate in paragraph (b) above, and that rate is less than the progress payment rate stated in subparagraph (a)(1) above.

(d) Title.

(1) Title to the property described in this paragraph (d) shall vest in the Government. Vestiture shall be immediately upon the date of this contract, for property acquired or produced before that date. Otherwise, vestiture shall occur when the property is or should have been allocable or properly chargeable to this contract.

(2) Property, as used in this clause, includes all of the below-described items acquired or produced by the Contractor that are or should be allocable or properly chargeable to this contract under sound and generally accepted accounting principles and practices.

(i) Parts, materials, inventories, and work in process;

(ii) Special tooling and special test equipment to which the Government is to acquire title;

(iii) Nondurable (i.e., noncapital) tools, jigs, dies, fixtures, molds, patterns, taps, gauges, test equipment, and other similar manufacturing aids, title to which would not be obtained as special tooling under subparagraph (ii) above; and

(iv) Drawings and technical data, to the extent the Contractor or subcontractors are required to deliver them to the Government by other clauses of this contract.

(3) Although title to property is in the Government under this clause, other applicable clauses of this contract; e.g., the termination clauses, shall determine the handling and disposition of the property.

(4) The Contractor may sell any scrap resulting from production under this contract without requesting the Contracting Officers approval, but the proceeds shall be credited against the costs of performance.

(5) To acquire for its own use or dispose of property to which title is vested in the Government under this clause, the Contractor must obtain the Contracting Officers advance approval of the action and the terms. The Contractor shall

(i) exclude the allocable costs of the property from the costs of contract performance, and

(ii) repay to the Government any amount of unliquidated progress payments allocable to the property. Repayment may be by cash or credit memorandum.

(6) When the Contractor completes all of the obligations under this contract, including liquidation of all progress payments, title shall vest in the Contractor for all property (or the proceeds thereof) not --

(i) Delivered to, and accepted by, the Government under this contract; or

(ii) Incorporated in supplies delivered to, and accepted by, the Government under this contract and to which title is vested in the

Government under this clause.

(7) The terms of this contract concerning liability for Government-furnished property shall not apply to property to which the Government acquired title solely under this clause.

(e) Risk of loss. Before delivery to and acceptance by the Government, the Contractor shall bear the risk of loss for property, the title to which vests in the Government under this clause, except to the extent the Government expressly assumes the risk. The Contractor shall repay the Government an amount equal to the unliquidated progress payments that are based on costs allocable to property that is lost (see 45.101).

(f) Control of costs and property. The Contractor shall maintain an accounting system and controls adequate for the proper administration of this clause.

(g) Reports, forms, and access to records.

(1) The Contractor shall promptly furnish reports, certificates, financial statements, and other pertinent information (including estimates to complete) reasonably requested by the Contracting Officer for the administration of this clause. Also, the Contractor shall give the Government reasonable opportunity to examine and verify the Contractor's books, records, and accounts.

(2) The Contractor shall furnish estimates to complete that have been developed or updated within six months of the date of the progress payment request. The estimates to complete shall represent the Contractor's best estimate of total costs to complete all remaining contract work required under the contract. The estimates shall include sufficient detail to permit Government verification.

(3) Each Contractor request for progress payment shall:

(i) Be submitted on Standard Form 1443, Contractor's Request for Progress Payment, or the electronic equivalent as required by agency regulations, in accordance with the form instructions and the contract terms; and

(ii) Include any additional supporting documentation requested by the Contracting Officer.

(h) Special terms regarding default. If this contract is terminated under the Default clause,

(i) the Contractor shall, on demand, repay to the Government the amount of unliquidated progress payments and

(ii) title shall vest in the Contractor, on full liquidation of progress payments, for all property for which the Government elects not to require delivery under the Default clause. The Government shall be liable for no payment except as provided by the Default clause.

(i) Reservations of rights.

(1) No payment or vesting of title under this clause shall --

(i) Excuse the Contractor from performance of obligations under this contract; or

(ii) Constitute a waiver of any of the rights or remedies of the parties under the contract.

(2) The Governments rights and remedies under this clause --

(i) Shall not be exclusive but rather shall be in addition to any other rights and remedies provided by law or this contract; and

(ii) Shall not be affected by delayed, partial, or omitted exercise of any right, remedy, power, or privilege, nor shall such exercise or any single exercise preclude or impair any further exercise under this clause or the exercise of any other right, power, or privilege of the Government.

(j) Financing payments to subcontractors. The financing payments to subcontractors mentioned in paragraphs (a)(1) and (a)(2) of this clause shall be all financing payments to subcontractors or divisions, if the following conditions are met:

(1) The amounts included are limited to --

(i) The unliquidated remainder of financing payments made; plus

(ii) Any unpaid subcontractor requests for financing payments.

(2) The subcontract or interdivisional order is expected to involve a minimum of approximately 6 months between the beginning of work and the first delivery, or, if the subcontractor is a small business concern, 4 months.

(3) If the financing payments are in the form or progress payments, the terms of the subcontract or interdivisional order concerning progress payments --

(i) Are substantially similar to the terms of the clause for any subcontractor that is a large business concern, or that clause with its Alternate I for any subcontractor that is a small business concern;

(ii) Are at least as favorable to the Government as the terms of this clause;

(iii) Are not more favorable to the subcontractor or division than the terms of this clause are to the Contractor;

(iv) Are in conformance with the requirements of FAR 32.504(e); and

(v) Subordinate all subcontractor rights concerning property to which the Government has title under the subcontract to the Governments right to require delivery of the property to the Government if --

(A) The Contractor defaults; or
(B) The subcontractor becomes bankrupt or insolvent.

(4) If the financing payments are in the form of performance-based payments, the terms of the subcontract or interdivisional order concerning payments--

(i) Are substantially similar to the Performance-Based Payments clause at FAR 52.232-32 and meet the criteria for, and definition of, performance-based payments in FAR Part 32;

(ii) Are in conformance with the requirements of FAR 32.504(f); and

(iii) Subordinate all subcontractor rights concerning property to which the Government has title under the subcontract to the Governments right to require delivery of the property to the Government if--

(A) The Contractor defaults; or

(B) The subcontractor becomes bankrupt or insolvent.

(5) If the financing payments are in the form of commercial item financing payments, the terms of the subcontract or interdivisional order concerning payments

(i) Are constructed in accordance with FAR 32.206(c) and included in a subcontract for a commercial item purchase that meets the definition and standards for acquisition of commercial items in FAR Part 2 and 12;

(ii) Are in conformance with the requirements of FAR 32.504(g); and

(iii) Subordinate all subcontractor rights concerning property to which the Government has title under the subcontract to the Governments right to require delivery of the property to the Government if--

(A) The Contractor defaults; or

(B) The subcontractor becomes bankrupt or insolvent.

(6) If financing is in the form of progress payments, the progress payment rate in the subcontract is the customary rate used by the contracting agency, depending on whether the subcontractor is or is not a small business concern.

(7) Concerning any proceeds received by the Government for property to which title has vested in the Government under the subcontract terms, the parties agree that the proceeds shall be applied to reducing any unliquidated financing payments by the Government to the Contractor under this contract.

(8) If no unliquidated financing payments to the Contractor remain, but there are unliquidated financing payments that the Contractor has made to any subcontractor, the Contractor shall be subrogated to all the rights the Government obtained through the terms required by this clause to be in any subcontract, as if all such rights had been assigned and transferred to the Contractor.

(9) To facilitate small business participation in subcontracting under this contract, the Contractor shall provide financing payments to small business concerns, in conformity with the standards for customary contract financing payments stated in Subpart 32.113. The Contractor shall not consider the need for such financing payments as a handicap or adverse factor in the award of subcontracts.

(k) Limitations on undefinitized contract actions. Notwithstanding any other progress payment provisions in this contract, progress

payments may not exceed 80 percent of costs incurred on work accomplished under undefinitized contract actions. A contract action is any action resulting in a contract, as defined in Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes. This limitation shall apply to the costs incurred, as computed in accordance with paragraph (a) of this clause, and shall remain in effect until the contract action is definitized. Costs incurred which are subject to this limitation shall be segregated on Contractor progress payment requests and invoices from those costs eligible for higher progress payment rates. For purposes of progress payment liquidation, as described in paragraph (b) of this clause, progress payments for undefinitized contract actions shall be liquidated at 80 percent of the amount invoiced for work performed under the undefinitized contract action as long as the contract action remains undefinitized. The amount of unliquidated progress payments for undefinitized contract actions shall not exceed 80 percent of the maximum liability of the Government under the undefinitized contract action or such lower limit specified elsewhere in the contract. Separate limits may be specified for separate actions.

(l) Due date. The designated payment office will make progress payments on the 30th day after the designated billing office receives a proper progress payment request. In the event that the Government requires an audit or other review of a specific progress payment request to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make a payment by the specified due date. Progress payments are considered contract financing and are not subject to the interest penalty provisions of the Prompt Payment Act.

(m) Progress payments under indefinitedelivery contracts. The Contractor shall account for and submit progress payment requests under individual orders as if the order constituted a separate contract, unless otherwise specified in this contract.

(End of Clause)

I-142 52.243-7 NOTIFICATION OF CHANGES APR/1984

(a) Definitions. Contracting Officer, as used in this clause, does not include any representative of the Contracting Officer.

Specifically Authorized Representative (SAR), as used in this clause, means any person the Contracting Officer has so designated by written notice (a copy of which shall be provided to the Contractor) which shall refer to this subparagraph and shall be issued to the designated representative before the SAR exercises such authority.

(b) Notice. The primary purpose of this clause is to obtain prompt reporting of Government conduct that the Contractor considers to constitute a change to this contract. Except for changes identified as such in writing and signed by the Contracting Officer, the Contractor shall notify the Administrative Contracting Officer in writing promptly, within 15 calendar days from the date that the Contractor identifies any Government conduct (including actions, inactions, and written or oral communications) that the Contractor regards as a change to the contract terms and conditions. On the basis of the most accurate information available to the Contractor, the notice shall state --

(1) The date, nature, and circumstances of the conduct regarded as a change;

(2) The name, function, and activity of each Government individual and Contractor official or employee involved in or knowledgeable about such conduct;

(3) The identification of any documents and the substance of any oral communication involved in such conduct;

(4) In the instance of alleged acceleration of scheduled performance or delivery, the basis upon which it arose;

(5) The particular elements of contract performance for which the Contractor may seek an equitable adjustment under this clause, including --

(i) What contract line items have been or may be affected by the alleged change;

(ii) What labor or materials or both have been or may be added, deleted, or wasted by the alleged change;

(iii) To the extent practicable, what delay and disruption in the manner and sequence of performance and effect on continued performance have been or may be caused by the alleged change;

(iv) What adjustments to contract price, delivery schedule, and other provisions affected by the alleged change are estimated; and

(6) The Contractors estimate of the time by which the Government must respond to the Contractors notice to minimize cost, delay or disruption of performance.

(c) Continued performance. Following submission of the notice required by paragraph (b) of this clause, the Contractor shall diligently

continue performance of this contract to the maximum extent possible in accordance with its terms and conditions as construed by the Contractor, unless the notice reports a direction of the Contracting Officer or a communication from a SAR of the Contracting Officer, in either of which events the Contractor shall continue performance; provided, however, that if the Contractor regards the direction or communication as a change as described in paragraph (b) of this clause, notice shall be given in the manner provided. All directions, communications, interpretations, orders and similar actions of the SAR shall be reduced to writing promptly and copies furnished to the Contractor and to the Contracting Officer. The Contracting Officer shall promptly countermand any action which exceeds the authority of the SAR.

(d) Government response. The Contracting Officer shall promptly, within 15 calendar days after receipt of notice, respond to the notice in writing. In responding, the Contracting Officer shall either --

(1) Confirm that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance;

(2) Countermand any communication regarded as a change;

(3) Deny that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance; or

(4) In the event the Contractors notice information is inadequate to make a decision under subparagraphs (d)(1), (2), or (3) of this clause, advise the Contractor what additional information is required, and establish the date by which it should be furnished and the date thereafter by which the Government will respond.

(e) Equitable adjustments.

(1) If the Contracting Officer confirms that Government conduct effected a change as alleged by the Contractor, and the conduct causes an increase or decrease in the Contractors cost of, or the time required for, performance of any part of the work under this contract, whether changed or not changed by such conduct, an equitable adjustment shall be made --

(i) In the contract price or delivery schedule or both; and

(ii) In such other provisions of the contract as may be affected.

(2) The contract shall be modified in writing accordingly. In the case of drawings, designs or specifications which are defective and for which the Government is responsible, the equitable adjustment shall include the cost and time extension for delay reasonably incurred by the Contractor in attempting to comply with the defective drawings, designs or specifications before the Contractor identified, or reasonably should have identified, such defect. When the cost of property made obsolete or excess as a result of a change confirmed by the Contracting Officer under this clause is included in the equitable adjustment, the Contracting Officer shall have the right to prescribe the manner of disposition of the property. The equitable adjustment shall not include increased costs or time extensions for delay resulting from the Contractors failure to provide notice or to continue performance as provided, respectively, in paragraphs (b) and (c) of this clause.

NOTE: The phrases contract price and cost wherever they appear in the clause, may be appropriately modified to apply to cost-reimbursement or incentive contracts, or to combinations thereof.

(End of Clause)

I-143 52.244-2 SUBCONTRACTS OCT/2010

(a) Definitions. As used in this clause

Approved purchasing system means a Contractors purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR)

Consent to subcontract means the Contracting Officers written consent for the Contractor to enter into a particular subcontract.

Subcontract means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (c) or (d) or this

clause.

(c) If the contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that--

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds

(i) For a contract awarded by the Department of Defense, the Coast Guard, or the national Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract; or

(ii) For contracts awarded by a civilian agency other that the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the contract.

(d) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officers written consent before placing the following subcontracts: TBD.

(e)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (b), (c), or (d) of this clause, including the following information:

(i) A description of the supplies or services to be subcontracted.

(ii) Identification of the type of subcontract to be used.

(iii) Identification of the proposed subcontractor.

(iv) The proposed subcontract price.

(v) The subcontractors current, complete, and accurate certified cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.

(vi) The subcontractors Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.

(vii) A negotiation memorandum reflecting --

(A) The principal elements of the subcontract price negotiations;

(B) The most significant considerations controlling establishment of initial or revised prices;

(C) The reason certified cost or pricing data were or were not required;

(D) The extent, if any, to which the Contractor did not rely on the subcontractors certified cost or pricing data in determining the price objective and in negotiating the final price;

(E) The extent to which it was recognized in the negotiation that the subcontractors certified cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;

(F) The reasons for any significant difference between the Contractors price objective and the price negotiated; and

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) The Contractor is not required to notify the Contracting Officer in advance of entering into any subcontract for which consent is not required under paragraph (c), (d), or (e) or this clause.

(f) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractors purchasing system shall constitute a determination --

(1) Of the acceptability of any subcontract terms or conditions;

(2) Of the allowability of any cost under this contract; or

(3) To relieve the Contractor of any responsibility for performing this contract.

(g) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(h) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(i) The Government reserves the right to review the Contractors purchasing system as set forth in FAR Subpart 44.3.i

(j) Paragraphs (c) and (e) of this clause do not apply to the following subcontracts, which were evaluated during negotiations: TBD.

I-144 252.203-7004 DISPLAY OF FRAUD HOTLINE POSTER(S) SEP/2011

(a) Definition. United States, as used in this clause, means the 50 States, the District of Columbia, and outlying areas.

(b) Display of fraud hotline poster(s).

(1) The Contractor shall display prominently in common work areas within business segments performing work in the United States under Department of Defense (DoD) contracts DoD fraud hotline posters prepared by the DoD Office of the Inspector General. DoD fraud hotline posters may be obtained from the DoD Inspector General, Attn: Defense Hotline, 400 Army Navy Drive, Washington, DC 22202-2884.

(2) If the contract is funded, in whole or in part, by Department of Homeland Security (DHS) disaster relief funds, the DHS fraud hotline poster shall be displayed in addition to the DoD fraud hotline poster. If a display of a DHS fraud hotline poster is required, the Contractor may obtain such poster from:

N/A

(3) Additionally, if the Contractor maintains a company website as a method of providing information to employees, the Contractor shall display an electronic version of the poster(s) at the website.

(c) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (c), in all subcontracts that exceed $5 million except when the subcontract--

(1) Is for the acquisition of a commercial item; or

(2) Is performed entirely outside the United States.

(End of clause)

I-145 252.232-7007 LIMITATION OF GOVERNMENT'S OBLIGATION MAY/2006

(a) Contract line item(s) (see Section B.2 of the contract) are incrementally funded. For these item(s), the sum of (see Section B.4) the total price is presently available for payment and allotted to this contract. An allotment schedule is set forth in paragraph (j) of this clause.

(b) For item(s) identified in paragraph (a) of this clause, the Contractor agrees to perform up to the point at which the total amount payable by the Government, including reimbursement in the event of termination of those item(s) for the Governments convenience, approximates the total amount currently allotted to the contract. The Contractor is not authorized to continue work on those item(s) beyond that point. The Government will not be obligated in any event to reimburse the Contractor in excess of the amount allotted to the contract for those item(s) regardless of anything to the contrary in the clause entitled Termination for Convenience of the Government. As used in this clause, the total amount payable by the Government in the event of termination of applicable contract line item(s) for convenience includes costs, profit, and estimated termination settlement costs for those item(s).

(c) Notwithstanding the dates specified in the allotment schedule in paragraph (j) of this clause, the Contractor will notify the Contracting Officer in writing at least ninety days prior to the date when, in the Contractors best judgment, the work will reach the point at which the total amount payable by the Government, including any cost for termination for convenience, will approximate 85 percent of the total amount then allotted to the contract for performance of the applicable item(s). The notification will state (1) the estimated date when that point will be reached and (2) an estimate of additional funding, if any, needed to continue performance of applicable line items up to the next scheduled date for allotment of funds identified in paragraph (j) of this clause, or to a mutually

agreed upon substitute date. The notification will also advise the Contracting Officer of the estimated amount of additional funds that will be required for the timely performance of the item(s) funded pursuant to this clause, for a subsequent period as may be specified in the allotment schedule in paragraph (j) of this clause or otherwise agreed to by the parties. If after such notification additional funds are not allotted by the date identified in the Contractors notification, or by an agreed substitute date, the Contracting Officer will terminate any item(s) for which additional funds have not been allotted, pursuant to the clause of this contract entitled Termination for Convenience of the Government.

(d) When additional funds are allotted for continued performance of the contract line item(s) identified in paragraph (a) of this clause, the parties will agree as to the period of contract performance which will be covered by the funds. The provisions of paragraphs (b) through (d) of this clause will apply in like manner to the additional allotted funds and agreed substitute date, and the contract will be modified accordingly.

(e) If, solely by reason of failure of the Government to allot additional funds, by the dates indicated below, in amounts sufficient for timely performance of the contract line item(s) identified in paragraph (a) of this clause, the Contractor incurs additional costs or is delayed in the performance of the work under this contract and if additional funds are allotted, an equitable adjustment will be made in the price or prices (including appropriate target, billing, and ceiling prices where applicable) of the item(s), or in the time of delivery, or both. Failure to agree to any such equitable adjustment hereunder will be a dispute concerning a question of fact within the meaning of the clause entitled Disputes.

(f) The Government may at any time prior to termination allot additional funds for the performance of the contract line item(s) identified in paragraph (a) of this clause.

(g) The termination provisions of this clause do not limit the rights of the Government under the clause entitled Default. The provisions of this clause are limited to the work and allotment of funds for the contract line item(s) set forth in paragraph (a) of this clause. This clause no longer applies once the contract is fully funded except with regard to the rights or obligations of the parties concerning equitable adjustments negotiated under paragraphs (d) and (e) of this clause.

(h) Nothing in this clause affects the right of the Government to terminate this contract pursuant to the clause of this contract entitled Termination for Convenience of the Government.

(i) Nothing in this clause shall be construed as authorization of voluntary services whose acceptance is otherwise prohibited under 31 U.S.C. 1342.

(j) The parties contemplate that the Government will allot funds to this contract in accordance with the Incremental Funding Schedules shown in Section B upon execution of contract.

(End of clause)

I-146 252.235-7010 ACKNOWLEDGMENT OF SUPPORT AND DISCLAIMER MAY/1995

(a) The Contractor shall include an acknowledgment of the Governments support in the publication of any material based on or developed under this contract, stated in the following terms: This material is based upon work supported by the United States Army Contracting Command - Warren under Contract No. W56HZV-12-C-0264.

(b) All material, except scientific articles or papers published in scientific journals, must, in addition to any notices or disclaimers by the Contractor, also contain the following disclaimer: Any opinions, findings and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the United States Army Contracting Command - Warren.

(End of clause)

I-147 252.239-7016 TELECOMMUNICATIONS SECURITY EQUIPMENT, DEVICES, TECHNIQUES, AND SERVICES DEC/1991

(a) Definitions. As used in this clause

(1) Securing means the application of Government-approved telecommunications security equipment, devices, techniques, or services to contractor telecommunications systems.

(2) Sensitive information means any information the loss, misuse, or modification of which, or unauthorized access to, could adversely

affect the national interest or the conduct of Federal programs, or the privacy to which individuals are entitled under 5 U.S.C. 552a (the Privacy Act), but which has not been specifically authorized under criteria established by an Executive Order or Act of Congress to be kept secret in the interest of national defense or foreign policy.

(3) Telecommunications systems means voice, record, and data communications, including management information systems and local data networks that connect to external transmission media, when employed by Government agencies, contractors, and subcontractors to transmit

(i) Classified or sensitive information;

(ii) Matters involving intelligence activities, cryptologic activities related to national security, the command and control of military forces, or equipment that is an integral part of a weapon or weapons system; or

(iii) Matters critical to the direct fulfillment of military or intelligence missions.

(b) This solicitation/contract identifies classified or sensitive information that requires securing during telecommunications and requires the Contractor to secure telecommunications systems. The Contractor agrees to secure information and systems at the following location: all contractor locations where JLTV information is to be processed, stored, or handled.

(c) To provide the security, the Contractor shall use Government-approved telecommunications equipment, devices, techniques, or services. A list of the approved equipment, etc. may be obtained from N/A. Equipment, devices, techniques, or services used by the Contractor must be compatible or interoperable with GFE.

(d) Except as may be provided elsewhere in this contract, the Contractor shall furnish all telecommunications security equipment, devices, techniques, or services necessary to perform this contract. The Contractor must meet ownership eligibility conditions for communications security equipment designated as controlled cryptographic items.

(e) The Contractor agrees to include this clause, including this paragraph (e), in all subcontracts which require securing telecommunications.

(End of clause)

I-148	52.219-4	NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS	JAN/2011

(a) Definition. See 13 CFR 125.6(e) for definitions of terms used in paragraph (d).

(b) Evaluation preference.

(1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference; and

(ii) Otherwise successful offers from small business concerns.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) A concern that is both a HUBZone small business concern and a small disadvantaged business concern will receive the benefit of both the HUBZone small business price evaluation preference and the small disadvantaged business price evaluation adjustment (see FAR clause 52.219-23). Each applicable price evaluation preference or adjustment shall be calculated independently against an offerors base offer. These individual preference amounts shall be added together to arrive at the total evaluated price for that offer.

(4) When the two highest rated offerors are a HUBZone small business concern and a large business, and the evaluated offer of the HUBZone small business concern is equal to the evaluated offer of the large business after considering the price evaluation preference, award will be made to the HUBZone small business concern.

(c) Waiver of evaluation preference. A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraphs (d) and (e) of this clause do not apply if the offeror has waived the evaluation preference.

___ Offer elects to waive the evaluation preference.

(d) Agreement. A HUBZone small business concern agrees that in the performance of the contract, in the case of a contract for

(1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;

(2) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone small business concerns;

(3) General construction. (i) At least 15 percent of the cost of contract performance to be incurred for personnel will be spent on the prime contractor's employees;

(ii) At least 50 percent of the cost of the contract performance to be incurred for personnel will be spent on the prime contractor's employees or on a combination of the prime contractor's employees and employees of HUBZone small business concern subcontractors;

(iii) No more than 50 percent of the cost of contract performance to be incurred for personnel will be subcontracted to concerns that are not HUBZone small business concerns; or

(4) Construction by special trade contractors. (i) At least 25 percent of the cost of contract performance to be incurred for personnel will be spent on the prime contractor's employees;

(ii) At least 50 percent of the cost of the contract performance to be incurred for personnel will be spent on the prime contractor's employees or on a combination of the prime contractor's employees and employees of HUBZone small business concern subcontractors;

(iii) No more than 50 percent of the cost of contract performance to be incurred for personnel will be subcontracted to concerns that are not HUBZone small business concerns.

(e) A HUBZone joint venture agrees that the aggregate of the HUBZone small business concerns to the joint venture, not each concern separately, will perform the applicable percentage of work requirements.

(f)(1) When the total value of the contract exceeds $25,000, a HUBZone small business concern nonmanufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business concern manufacturers.

(2) When the total value of the contract is equal to or less than $25,000, a HUBZone small business concern nonmanufacturer may provide end items manufactured by other than a HUBZone small business concern manufacturer provided the end items are produced or manufactured in the United States.

(3) Paragraphs (f)(1) and (f)(2) of this section do not apply in connection with construction or service contracts.

(g) Notice. The HUBZone small business offeror acknowledges that a prospective HUBZone awardee must be a HUBZone small business concern at the time of award of this contract. The HUBZone offeror shall provide the Contracting Officer a copy of the notice required by 13 CFR 126.501 if material changes occur before contract award that could affect its HUBZone eligibility. If the apparently successful HUBZone offeror is not a HUBZone small business concern at the time of award of this contract, the Contracting Officer will proceed to award to the next otherwise successful HUBZone small business concern or other offeror.

(End of clause)

I-149 52.219-28 POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION APR/2012

(a) Definitions. As used in this clause--

"Long-term contract" means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause at 52.217-8, Option to Extend Services, or other appropriate authority.

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (c) of this clause. Such a concern is "not dominant in its field of operation" when it does not

exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. In determining whether dominance exists, consideration shall be given to all appropriate factors, including volume of business, number of employees, financial resources, competitive status or position, ownership or control of materials, processes, patents, license agreements, facilities, sales territory, and nature of business activity.

(b) If the Contractor represented that it was a small business concern prior to award of this contract, the Contractor shall rerepresent its size status according to paragraph (e) of this clause or, if applicable, paragraph (g) of this clause, upon the occurrence of any of the following:

(1) Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.

(2) Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.

(3) For long-term contracts

(i) Within 60 to 120 days prior to the end of the fifth year of the contract; and

(ii) Within 60 to 120 days prior to the date specified in the contract for exercising any option thereafter.

(c) The Contractor shall rerepresent its size status in accordance with the size standard in effect at the time of this rerepresentation that corresponds to the North American Industry Classification System (NAICS) code assigned to this contract. The small business size standard corresponding to this NAICS code can be found at *HYPERLINK "http://www.sba.gov/content/table-small-business-size-standards"http://www.sba.gov/content/table-small-business-size-standards

(d) The small business size standard for a Contractor providing a product which it does not manufacture itself, for a contract other than a construction or service contract, is 500 employees.

(e) Except as provided in paragraph (g) of this clause, the Contractor shall make the rerepresentation required by paragraph (b) of this clause by validating or updating all its representations in the Online Representations and Certifications Application and its data in the Central Contractor Registration, as necessary, to ensure that they reflect the Contractor's current status. The Contractor shall notify the contracting office in writing within the timeframes specified in paragraph (b) of this clause that the data have been validated or updated, and provide the date of the validation or update.

(f) If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (e) or (g) of this clause.

(g) If the Contractor does not have representations and certifications in ORCA, or does not have a representation in ORCA for the NAICS code applicable to this contract, the Contractor is required to complete the following rerepresentation and submit it to the contracting office, along with the contract number and the date on which the rerepresentation was completed:

The Contractor represents that it [ ] is, [X] is not a small business concern under NAICS Code 336992 assigned to contract number W56HZV-12-C-0264. [Contractor to sign and date and insert authorized signer's name and title].

(End of clause)

I-150 52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA JAN/1997

(a) Hazardous material, as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (If none, insert None)	Identification No.

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Governments rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to --

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(End of Clause)

I-151 52.223-11 OZONE-DEPLETING SUBSTANCES MAY/2001

(a) Definition. Ozone-depleting substance, as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR Part 82 as--

(1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or

(2) Class II , including, but not limited to hydrochlorofluorocarbons.

(b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:

Warning

Contains (or manufactured with, if applicable) *_____, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

* The Contractor shall insert the name of the substance(s).

(End of Clause)

I-152 52.234-1 INDUSTRIAL RESOURCES DEVELOPED UNDER DEFENSE PRODUCTION ACT TITLE III DEC/1994

(a) Definitions. Title III industrial resource means materials, services, processes, or manufacturing equipment (including the processes, technologies, and ancillary services for the use of such equipment) established or maintained under the authority of Title III, Defense Production Act (50 U.S.C. App. 2091-2093).

Title III project contractor means a contractor that has received assistance for the development or manufacture of an industrial resource under 50 U.S.C. App. 2091-2093, Defense Production Act.

(b) The Contractor shall refer any request from a Title III project contractor for testing and qualification of a Title III industrial resource to the Contracting Officer.

(c) Upon the direction of the Contracting Officer, the Contractor shall test Title III industrial resources for qualification. The Contractor shall provide the test results to the Defense Production Act Office, Title III Program, located at Wright Patterson Air Force Base, Ohio 45433-7739.

(d) When the Contracting Officer modifies the contract to direct testing pursuant to this clause, the Government will provide the Title III industrial resource to be tested and will make an equitable adjustment in the contract for the costs of testing and qualification of the Title III industrial resource.

(e) The Contractor agrees to insert the substance of this clause, including paragraph (e), in every subcontract issued in performance of this contract.

I-153 52.252-2 CLAUSES INCORPORATED BY REFERENCE FEB/1998

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address:

http://www.acq.osd.mil/dpap/dars/far.html or http://www.acq.osd.mil/dpap/dars/index.htm or http://farsite.hill.af.mil/VFAFARa.HTM

(End of Clause)

I-154 52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES APR/1984

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of (DEVIATION) after the date of the clause.

(b) The use in this solicitation or contract of any DoD FAR SUPPLEMENT (48 CFR 2) clause with an authorized deviation is indicated by the addition of (DEVIATION) after the name of the regulation.

(End of Clause)

I-155 252.223-7001 HAZARD WARNING LABELS DEC/1991

(a) Hazardous material, as used in this clause, is defined in the Hazardous Material Identification and Material Safety Data clause of this contract.

(b) The Contractor shall label the item package (unit container) of any hazardous material to be delivered under this contract in accordance with the Hazard Communication Standard (29 CFR 1910.1200 et seq). The Standard requires that the hazard warning label conform to the requirements of the standard unless the material is otherwise subject to the labeling requirements of one of the following statutes:

(1) Federal Insecticide, Fungicide and Rodenticide Act;

(2) Federal Food, Drug and Cosmetics Act;

(3) Consumer Product Safety Act;

(4) Federal Hazardous Substances Act; or

(5) Federal Alcohol Administration Act.

(c) The Offeror shall list which hazardous material listed in the Hazardous Material Identification and Material Safety Data clause of this contract will be labeled in accordance with one of the Acts in paragraphs (b)(1) through (5) of this clause instead of the Hazard Communication Standard. Any hazardous material not listed will be interpreted to mean that a label is required in accordance with the Hazard Communication Standard.

MATERIAL (If None, Insert None.)	ACT
NONE	

(d) The apparently successful Offeror agrees to submit, before award, a copy of the hazard warning label for all hazardous materials not listed in paragraph (c) of this clause. The Offeror shall submit the label with the Material Safety Data Sheet being furnished under the Hazardous Material Identification and Material Safety Data clause of this contract.

(e) The Contractor shall also comply with MIL-STD-129, Marking for Shipment and Storage (including revisions adopted during the term of this contract).

(End of clause)

I-156 52.204-4009 MANDATORY USE OF CONTRACTOR TO GOVERNMENT ELECTRONIC COMMUNICATION MAR/2005

(a) All references in the contract to the submission of written documentation shall mean electronic submission. All electronic submissions shall be in the formats and media described in the website:

http://contracting.tacom.army.mil/acqinfo/ebidnotice.htm

(b) This shall include all written unclassified communications between the Government and the Contractor except contract awards and contract modifications which shall be posted on the internet. Return receipt shall be used if a commercial application is available. Classified information shall be handled in full accordance with the appropriate security requirements.

(c) In order to be contractually binding, all Government communications requiring a Contracting Officer signature must be sent from the Contracting Officer's e-mail address. The Contractor shall designate the personnel with signature authority who can contractually bind the contractor. All binding contractor communication shall be sent from this contractor e-mail address(es).

(d) Upon award, the Contractor shall provide the Contracting Officer with a list of e-mail addresses for all administrative and technical personnel assigned to this contract.

(e) Unless exempted by the Procuring Contracting Officer in writing, all unclassified written communication after contract award shall be transmitted electronically.

[End of Clause]

I-157 52.219-4070 PILOT MENTOR-PROTEGE PROGRAM APR/2006

(a) The Pilot Mentor-Protege Program does not apply to small business concerns.

(b) Utilization of the Pilot Mentor-Protege Program (hereafter referred to as the Program) is encouraged. Under the Program, eligible companies approved as mentor firms enter into a mentor-protege agreement with eligible protege firms. The goal of the program is to provide appropriate developmental assistance to enhance the capabilities of the protege firm. The Mentor firm may be eligible for cost reimbursement or credit against their applicable subcontracting goals.

(c) Mentor firms are encouraged to identify and select concerns that are defined as emerging small business concerns, small disadvantaged business, women-owned small business, HUBZone small business, service-disabled veteran-owned small business, veteran-owned small business or an eligible entity employing the severely disabled.

(d) Full details of the program are located at http://www.acq.osd.mil/sadbu/mentor protege/

or

http://sellingtoarmy.info/User/ShowPage.aspx?SectionID=12

(e) For additional questions after reviewing the information provided, contact the Office of Small Business Programs serving your area.

[End of Clause]

SECTION J - LIST OF ATTACHMENTS

List of Addenda	Title	Date	Number of Pages	Transmitted By
Exhibit A	CONTRACT DATA REQUIREMENTS LIST (CDRL)	24-JUL-2012	0NA	
Attachment 0001	JLTV PURCHASE DESCRIPTION (PD)	08-MAR-2012	0NA	
Attachment 0002	INTEGRATED MASTER PLAN (IMP)	12-JAN-2012	017	
Attachment 0003	RESERVED			
Attachment 0004	START OF WORK MEETING (SOWM) AGENDA	04-NOV-2011	002	
Attachment 0005	APPROVED CONTRACT CSDR PLAN A-11-B-C1	08-FEB-2012	0NA	
Attachment 0006	MANUFACTURING COST ESTIMATE TEMPLATE	08-MAR-2012	0NA	
Attachment 0007	RESERVED			
Attachment 0008	INTEGRATED MASTER SCHEDULE (IMS) WBS	01-MAR-2012	0NA	
Attachment 0009	KEY SUBSYSTEMS	04-NOV-2011	003	
Attachment 0010	REQUIREMENTS VERIFICATION MATRIX	16-SEP-2011	0NA	
Attachment 0011	RECOMMENDED USER REVIEW EVALUATIONS	04-NOV-2011	002	
Attachment 0012	VEHICLE SPECIFICATION SHEET	08-NOV-2011	003	
Attachment 0013	PRE-TRR CHECKLIST	23-NOV-2011	007	
Attachment 0014	VEHICLE PROPULSION DATA SHEET	04-NOV-2011	0NA	
Attachment 0015	VEHICLE MOBILITY DATA SHEETS	07-FEB-2012	0NA	
Attachment 0016	VEHICLE DYNAMICS DATA SHEETS	04-NOV-2011	0NA	
Attachment 0017	THERMAL MANAGMENT DATA SHEETS	04-NOV-2011	003	
Attachment 0018	RESERVED			
Attachment 0019	RESERVED			
Attachment 0020	VULNERABILITY DATA SHEETS	04-NOV-2011	003	
Attachment 0021	CAB DESIGN DATA SHEET (FOUO)	14-DEC-2011	0NA	
Attachment 0022	BLAST PROTECTION DATA SHEETS	11-NOV-2011	005	
Attachment 0023	MIL GRADE CONNECTOR WAIVER FORM	10-NOV-2011	0NA	
Attachment 0024	SIL DEMONSTARTION OPERATING SCENARIOS	04-NOV-2011	002	
Attachment 0025	RESERVED			
Attachment 0026	AMSAA PLANNING MODEL BASED ON PROJECTION METHODOLOGY (PM2) TECHNICAL REPORT NO. TR-2006-9	31-MAY-2006	073	
Attachment 0027	JLTV RISK SCORING CRITERIA	04-NOV-2011	003	
Attachment 0028	M&S CAE MODELS	04-NOV-2011	002	
Attachment 0029	DEVELOPMENTAL DESIGN MODELS TECHNICAL DATA (CAD MODELS)	07-NOV-2011	008	
Attachment 0030	HAZARD TRACKING LOG CONTENT REQUIREMENTS	08-FEB-2012	0NA	
Attachment 0031	REQUEST FOR USE OF PROHIBITED MATERIALS	04-NOV-2011	003	
Attachment 0032	RESERVED			
Attachment 0033	RESERVED			
Attachment 0034	ILS DEFINITIONS	18-NOV-2011	006	
Attachment 0035	COMMNALITY MATRIX	05-JAN-2012	004	
Attachment 0036	GFE/GFI LIST	09-MAR-2012	0NA	
Attachment 0037	EMD VEHICLE CONFIGURATION AND ALLOCATION MATRIX (FOUO)	01-MAY-2012	0NA	
Attachment 0038	FAILURE DEFINITION AND SCORING CRITERIA (FDSC)	29-FEB-2012	026	
Attachment 0039	RESERVED			
Attachment 0040	RAM DUTY CYCLES	10-FEB-2012	006	
Attachment 0041	RESERVED			
Attachment 0042	CORRECTIVE ACTION PERIOD (CAP) EXECUTION PLAN	12-JAN-2012	002	
Attachment 0043	RESERVED			
Attachment 0044	DD FORM 254 - CONTRACT SECURITY CLASSIFICATION SPECIFICATION	12-JUL-2012	0NA	
Attachment 0045	RESERVED			
Attachment 0046	RESERVED			
Attachment 0047	RESERVED			
Attachment 0048	RESERVED			
Attachment 0049	IMS CSV FORMAT	16-SEP-2011	0NA	
Attachment 0050	SAFETY & CRASHWORTHINESS DATA SHEETS	04-NOV-2011	002	
Attachment 0051	CCDR INSTURCTIONS	27-FEB-2012	0NA	
Attachment 0052	FUTURE C41 SYSTEMS GROWTH	08-FEB-2012	004	
Attachment 0053	CLIN 0015 RATE SCHEDULE	24-JUL-2012		
Attachment 0054	IDENTIFICATION AND ASSERTION OF RESTRICTION ON THE GOVERNMENT USE, RELEASE, OR DISCLOSURE OF TECHNICAL DATA OR COMPUTER SOFTWARE	27-MAR-2012	034	
Attachment 0055	SUBCONTRACTING PLAN	30-MAY-2012	013	